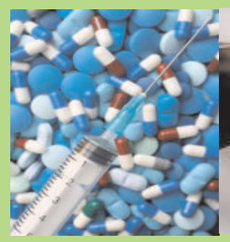
Union Government (Defence Services) - Report No. 18 of 2012-13



Report of the Comptroller and Auditor General of India

on Performance of

Medical Establishments in Defence Services

Union Government
(Defence Services)
No. 18 of 2012-13
(Performance Audit)

Contents

PREFACE

Armed Forces Medical Services (AFMS) is an inter services organization headed by the Director General Armed Forces Medical Services (DGAFMS) who functions directly under the Ministry of Defence. It is responsible for providing health care services to Armed Forces personnel, their families and other beneficiaries as mandated.

Recognising its vital role, both in peace time as well during hostilities, a Performance Audit of the functioning of the Medical Establishments in Defence Services was conducted during January 2011 to November 2011 to seek an assurance that it is equipped to carry out its role of providing timely and quality medical care to its beneficiaries and that the nascent organisation of ECHS has been provided with necessary infrastructure, medical equipment, drugs and human resources. This report, by highlighting systemic weaknesses and recommending remedial measures, seeks to bring about overall improvements in the operation of the Medical Establishments in Defence Services. We hope that the recommendations made in this report, if implemented, would lead to a more efficient and effective functioning of the AFMS.

The Report has been prepared for submission to the President under Article 151 of the Constitution.

Executive Summary

1. Why did we do this performance audit?

Armed Forces Medical Services (AFMS) is one of the critical logistics arms of Defence Services both in war and in peace. The objective of the AFMS is to preserve and promote the health of the Armed Forces personnel and their families by prevention of diseases and care and treatment of the sick and wounded among them.

AFMS is an inter services organisation headed by Director General Armed Forces Medical Services (DGAFMS) who functions directly under the Ministry of Defence. DGAFMS at the apex level is assisted by the Directors General Medical Service for the Army, Navy and Air Force who are responsible for overseeing the functioning of the hospitals of the respective Services.

There are 133 Military Hospitals (Army-111, Navy-10 & Air Force-12) of varying bed strengths spread throughout the country in addition to 90 Field Hospitals in field areas.

AFMS, in April 2003, assumed the responsibility for treatment of Ex-servicemen and their families as and when referred by the Ex-servicemen Contributory Health Scheme (ECHS) polyclinics.

Considering the pivotal role of the organisation to keep the Armed Forces personnel healthy, we undertook this performance audit to assess how well the organisation is equipped and also the extent to which it was performing the assigned role, keeping efficiency, effectiveness and economy in mind.

2. What does this performance audit cover?

We took up the performance audit to obtain reasonable assurance that:

- There existed a sound budgetary formulation, control and expenditure management system conforming to the General Financial Rules;
- Hospitals are adequately manned with doctors, nurses and paramedical staff and are equipped with modern medical equipment;
- Sound practices existed for ensuring economy in procurement, inspection and timely supply of drugs to hospitals/ patients;
- Hospital administration including bio medical waste management was effective; and

- The nascent organisation of ECHS has been provided with necessary infrastructure, medical equipment, drugs and human resources.

3. Our audit findings

Increasing trend in local procurement of drugs

During the period from 2006-07 to 2010-11, the allotment of funds for local purchase (LP) of drugs increased significantly from ₹ 157.73 crore to ₹ 371.34 crore, an increase of 135 *per cent,* against a marginal increase (11 *per cent*) in allotment for central purchase (CP). As LP is intended to meet requirements of ad hoc and urgent nature, the major shift in the trend of allocating budget in favour of LP was contrary to the obvious advantages of centralised procurement in terms of quality and cost.

(Paragraph 2.2)

Disconnect between Annual Acquisition Plan and Budget allotment

Annual acquisition plans reflect the plan for procurement of items for modernisation of AFMS covering both revenue and capital items. There was a huge backlog of ₹ 943.41 crore, as of March 2011, against the approved Annual Acquisition Plan (AAP), making the plans largely irrelevant as far as procurement of capital items is concerned. The huge cumulative backlog of the AAP shows that the implementation has been rather slow and tardy due to processing delays.

(Paragraph 2.4)

Critical shortage of Medical officers in hospitals

Manpower in medical services is a critical component having a direct bearing on patient care. There was an overall shortage of 12 *per cent* Medical Officers (MO) in hospitals. Barring the Tertiary care hospitals (CH & Spl centers), deficiency existed in the chain of medical care of Army at Field Hospitals (36 *per cent*), Peripheral (6 *per cent),* Mid Zonal *(*19 *per cent)* and Zonal hospitals (nine *per cent*). Even among the Command and Specialist hospitals the posted strength varied from (-) 25 *per cent* in Udhampur to (+) 93 *per cent* in R&R Hospital Delhi. The cumulative deficiencies in Field, Peripheral, Mid Zonal and Zonal hospitals with surpluses in Tertiary care units is indicative of non-rationalisation in posting of the MOs against authorization.

(Paragraph 3.1)

Recruitment through Armed Forces Medical College (AFMC)

Medical cadets passing out of AFMC are liable to serve the Services. During the years 2007 to 2010, 73 of the 508 successful cadets opted out of service liability by paying the bond money of ₹ 15 lakh as fixed by the Ministry in September 1998. Obviously, the bond money of ₹ 15 lakh was not a sufficient deterrent in arresting the exodus.

(Paragraph 3.2)

Shortage of specialists

MBBS doctors acquiring appropriate qualifications are graded as specialists/ super specialists. As of March 2011, the specialists/super specialists held were 1919 against the authorisation of 2217 (2295 minus the reserve of 78) indicating a deficiency of 298 (14 *per cent*).

Attrition of specialists

During 2006-10, 190 specialists had left the service on grounds of supersession in service. Maximum attrition of specialists had taken place in those disciplines where deficiencies already existed.

(Paragraph 3.3)

Deployment of nursing staff and paramedical staff

As in the case of medical officers, there was disparity in the deployment of nurses and paramedical staff across various hospitals. In CH SC Pune, CH WC Chandimandir, AH R&R, BH Delhi Cantt and MH Jaipur, nursing staff was short by 39 *per cent*, 30 *per cent*, 21 *per cent*, 3 *per cent* and 25 *per cent*. At CH WC Chandimandir, BH Delhi Cantt and MH Jaipur paramedical staff was in excess by 4 *per cent,* 15 *per cent* and 8 *per cent* respectively, whereas it was short by 15 *per cent* and 23 *per cent* at CH SC Pune and AH R&R.

(Paragraphs 3.4 & 3.5)

Huge shortage of scaled electro-medical equipment

As of December 2010, there was deficiency of at least 22,108 equipment in different hospitals, with reference to the authorised scales for which no procurement was made to make up the projected deficiencies.

Alarming deficiency of critical equipment

We examined the holding of 20 equipment vis-à-vis the authorization at 28 hospitals. Most of the hospitals were alarmingly deficient in equipment such as portable multi channel ECG, bedside monitor heart rate display, DC defibrillator, Nebuliser electric, Portable ultrasound unit, etc.

(Paragraph 4.2)

Downtime of medical equipment

The downtime of 51 medical equipment in 10 hospitals valuing ₹ 16.35 crore, ranged from 01 month to 12 months due to delay in repair by the Command Repair Cells and AFMSD Pune.

(Paragraph 4.7)

Vendor registration

The system of vendor registration was flawed as the hospitals registered even those firms which had made a false declaration; or/and did not produce certificate of Good Manufacturing Practice (GMP) issued by the State or Central authorities, Dealer licence and valid drug licence at the time of registration.

(Paragraph 5.4)

Central procurements through Rate Contracts

Normally Rate Contracts (RC) are executed to enable procurement officers to procure indented items with economy of scale. However, as of March 2011, RCs were in force only in respect of 44 items (6 *per cent of total items*) which resulted in local purchase at higher cost.

Local procurement of items available under RC

Even where DGAFMS had concluded RCs, our test check showed that six hospitals procured drugs from other than RC firms at higher rates. Similarly, Command Hospital, Pune, AFMSDs Delhi, Mumbai and Lucknow procured goods locally at rates higher than the DGS&D RC rate.

(Paragraph 5.5)

Local procurement of drugs at inexplicably varying rates

Inexplicable wide variation in the rates of procurement by different hospitals in respect of common drugs was prevalent. For example for Oral Rehydration Powder (PVMS-011688) the rate varied from ₹1.58 {CH (AF) Bengaluru} to ₹12.93 (INHS Ashwini) and for Voveran Gel (PVMS-012920) it varied from ₹6.98 (MH Ambala) to ₹ 59.17 (INHS Jeevanthi). In respect of Digene (170 ml bottle) local purchase rates varied from ₹ 9.50 per bottle (AH R&R) to ₹41.50 (178 MH). Similarly the procurement rate of Inj Dextrose varied from ₹12.8 (CH WC) to ₹ 150 (MH Kirkee).

The fact that there are huge price variations in local procurements of drugs across various hospitals ranging upto even 100 times implies one of the following two possibilities:

- Drugs are being procured locally at exorbitant prices; and
- Drugs are being supplied at freakishly low prices, calling into question their quality, given the fact that supplies in local procurements are accepted in hospitals based on only visual inspection by a board of officers.

(Paragraph 5.7)

Overstocking of drugs

AFMSD Delhi was holding 210 drugs valuing ₹ 3.80 crore in excess of the requirement. Out of the 210 drugs the quantity held in respect of 96 drugs, constituting 46 *per cent*, would be sufficient for more than two years, by which time their life would have expired. In the case of some of the medicines, overstocking was so huge that it covered the requirement of 6 to 109 years based on the average monthly maintenance figure. Similarly, AFMSD Mumbai was holding 460 drugs in excess, of which the stock of 197 drugs (constituting 43 *per cent*) would be sufficient for a period of more than two years, by which time the life would have expired.

(Paragraph 5.9)

Procurement of drugs with less than prescribed shelf life

The stocking policy laid down by DGAFMS requires the AFMSDs to accept expendable stores with residual life of at least five-sixth of their normal life. Test check for the month of December in 2008, 2009 and 2010 at AFMSD Lucknow revealed that 22 items valuing ₹ 46.64 lakh having shelf-life less than prescribed were accepted. The position was even worse in AFMSD Delhi where 52 such items valuing ₹ 2.00 crore were accepted. AFMSD Mumbai had accepted 20 such items valuing ₹ 23.07 lakh.

(Paragraph 5.10)

Quality inspection

The Director General of Quality Assurance (DGQA) is mandated to carry out inspection of all purchases against the RC and local purchases where the order value exceeds ₹ 1.5 lakh. However, we noticed that the DGQA authorities designated for the inspection were underequipped for conducting such tests, which compromised the quality of inspection. We also observed that in a large number of cases drugs were accepted by the CH WC, AH (R&R), CH SC, AFMSD Mumbai without the Inspection Note. Acceptance of drugs without Inspection Note carries the risk of acceptance of substandard drugs.

(Paragraph 5.14)

Deficiency in storage accommodation

Cool room and cold storage accommodation in hospitals are intended to preserve the life as well as the quality of medical stores. We noticed that in the test checked hospitals across the country deficiency in cool room ranged from 11 to 100 *per cent*, that of cold storage from 10 to 100 *per cent* and of overall medical storage accommodation from 5 to 100 *per cent*.

Deficiency in ambulances

During July 2008 to July 2011, the deficiency of four stretcher ambulances increased from 48 *per cent* to 57 *per cent.* Of the 23 hospitals reviewed during the performance audit, where the holding of ambulances against the authorisation was examined, only nine hospitals had ambulances as authorised, one was holding surplus while deficiency was there in 13 hospitals. The deficiency was the highest at MH Jaipur (50 *per cent*) followed by MH Ambala (46 *per cent*), MH Jabalpur (40 *per cent*), MH Jodhpur (36 *per cent*), MH Gaya (33 *per cent*) and CH SC (29 *per cent*).

(Paragraph 6.2)

Bio-Medical Waste

Under the Bio-Medical Waste (Management & Handling) Rules 1998 all Health Care Establishments (HCEs) generating bio-medical waste are required to apply to the prescribed authority for authorization for management and handling of bio-medical wastes. Of the 280 HCEs in the Army, 241 (87 *per cent*) were not holding valid authorisation as of March 2011. In Air Force, 99 HCEs out of 162 (61 *per cent*) and in Navy, 2 HCEs out of 10 (20 *per cent)* did not renew their authorisation as of March 2011. As valid authorisation under the rules is not available to a large number of HCEs, their capacity to handle bio medical waste in accordance with these rules is suspect.

(Paragraph 6.4)

Creation of infrastructure

As per the scheme sanctioned in December 2002, the infrastructure was to be created within four years in 104 polyclinics at military stations and in 123 polyclinics at non-military stations within five years. While the scheme had nearly met the objective of creating infrastructure in military stations, in respect of non- military stations the infrastructure was established in only 15 *per cent* of the polyclinics as of February 2011.

(Paragraph 7.2)

Deficiency in manpower

Deficiency of Medical Specialists and Gynecologists in ECHS was as high as 27 *per cent* and 31 *per cent* respectively as of March 2011. The deficiency in respect of all categories of medical officers was more in the polyclinics located in non-military stations than in the military stations, adversely affecting patient care by the former.

(Paragraph 7.3)

Equipment

Even as X-ray machines were provisioned to all the 227 polyclinics, radiographers to operate them have not been sanctioned for 79 military polyclinics. As a result, at many places, the X-ray machines were not utilised and therefore were either transferred to military hospitals or were lying idle.

Downtime and non-functioning of medical equipment

Thirty six equipment remained intermittently un-serviceable at 18 polyclinics during 2008-10 for periods ranging from one month to 36 months. As of March 2011, 18 equipment (seven X-ray machines, nine Dental chairs and two Semi auto analysers) at 17 polyclinics located at non-military stations were non functional since January 2010.

Low availability of medical stores

The ECHS Polyclinics are dependent on AFMSDs as well as nearest service hospitals for medical stores.

The AFMSD Mumbai did not stock 35 vital and essential drugs (52 *per cent*), while the stock of nine drugs (13 *per cent*) was less than the requirement as per the monthly maintenance figure (MMF). The AFMSD Delhi Cantt did not have stock of 10 essential drugs (15 *per cent*) and for 24 drugs (36 *per cent*) the stock was less than MMF. Thus the depots were unable to provide the vital and essential drugs to ECHS polyclinics.

(Paragraph 7.4)

Inadequacy of empanelled hospitals

In the non-military stations the beneficiaries have to solely rely on the empanelled hospital for treatment. No empanelled hospital was available to ECHS beneficiaries at 15 non-military stations (20 *per cent*) and at an equal number of military stations (21 *per cent*). Thus, in the absence of empanelled hospitals the beneficiaries in those non-military stations were deprived of hospital care.

(Paragraph 7.5)

Recommendations

What do we recommend?

1) **All hospitals and AFMSDs may formulate budget estimates keeping in view the workload and past trends of expenditure and DGAFMS may allot funds based on such estimates. Funds may be allotted separately for maintenance and repairs of hospital equipment.**

2) **The Ministry and DGAFMS may rationalise the Annual Acquisition Plans (AAP) after a review of requirements and implement the AAP in a time bound manner to modernise its hospitals.**

3) **DGAFMS may regulate the postings of General Duty Medical Officers, Specialists, Nursing and Paramedical staff in hospitals based on reasonable assessment of workload to even out the deficiencies.**

4) **Exodus of medical cadets after passing out from AFMC may be discouraged by adopting a suitable scheme of incentives and disincentives.**

5) **There is a need to comprehensively review the availability of equipment in all hospitals and take immediate action to fill the existing gaps which are substantial.**

6) **The pace of procurements planned under Annual Acquisition Plans needs to be accelerated for modernisation to remain relevant. This would be possible only if budgetary outlays are significantly increased and procurement process is made more efficient.**

7) **Effective steps may be taken to streamline the maintenance and repair of costly equipment. The deficiency in technical manpower at Command Repair Cells and AFMSD Pune may be made good together with up-gradation in the skills of existing manpower to carry out emergency/minor repairs so as to reduce the downtime of equipment.**

8) **DGAFMS may strengthen the internal processes for procurement of quality medicines by strict implementation of laid-down procedures. The process of registration of vendors may be periodically checked and any deviation from the prescribed norms may invariably be investigated.**

9) **DGAFMS may revamp the system of operation of RCs to make it more efficient and suited to the needs of consignees. Backlog in concluding RCs may be removed. Effective steps may be taken to ensure that Direct Demanding Officers do not resort to local procurement without placing orders on RC holders in the first instance.**

10) **AFMSDs may ensure supply of drugs to all the dependent hospitals, so that local procurement by them is minimised.**

11) In view of the wide variation in rates and brands of PVMS/NIV drugs/consumables locally procured across hospitals, DGAFMS may take effective steps to regulate their procurements and increase their coverage through RCs and central purchase by AFMSDs.

12) Immediate and effective steps may be taken to make the quality assurance system in AFMS more robust for pre-despatch inspection and post-lab tests of drugs and consumables.

13) Deficiencies in the existing cold storage accommodation for drugs and ambulances should be remedied within a reasonable time.

14) Urgent steps need to be taken by DGAFMS to ensure strict adherence to the Bio-Medical Waste (Management & Handling) Rules 1998 by Health Care Establishments.

15) Effective and early steps may be taken to improve the availability of drugs, infrastructure and manpower, particularly in non-military stations, to ensure manning of equipment as well as for providing adequate patient care through ECHS.

Chapter I: Introduction

1.1 About Armed Forces Medical Services (AFMS)

"Sarve Santu Niramaya"

Armed Forces Medical Services (AFMS), which came into being in 1948, is one of the critical logistics services of Defence Services both in war and in peace. The objective of the AFMS is to preserve and promote the health of the Armed Forces Personnel and their families by prevention of diseases and care and treatment of the sick and wounded among them. The mandate of AFMS is discharged through a network of 133 Military Hospitals[1] of varying bed strengths spread across the country, apart from 90 Field Hospitals that provide medical care to service personnel in the field areas. Though structured for providing medical care primarily to a population of approximately 63 lakh serving personnel and their families, the AFMS also provides medical support to Army Units deployed in international missions and medical relief in case of natural calamities or disaster situations in the country.

The Director General Armed Forces Medical Services (DGAFMS), who holds the rank of a Lt. General and heads the entire AFMS, is responsible for provisioning, storing and issue of medical stores/medical equipment; research and development in subjects of service medicine; recruitment, training and deployment of medical officers for Army, Navy and Air Force, administration of Dental and Nursing Services of the Armed Forces; operation and maintenance of Armed Forces Medical College (AFMC) and all Medical Stores Depots.

To cater to the health needs of the ex-servicemen and their dependents, the Ex-servicemen Contributory Health Scheme (ECHS) was set up by Government in December 2002. Medical treatment to such ex-servicemen (ESM) and their dependents, who opt to join the Scheme, is provided through a network of 227 ECHS polyclinics spread all over the country. These polyclinics serve as the first contact point for availing of treatment and provide required out-patient care and medicines to the ex-service personnel. The requirement of further treatment or investigations of the

[1] Army-111, Navy-10 & Air Force-12

ECHS beneficiaries is provided through Service hospitals, empanelled civil hospitals and diagnostic centres based on a reference from the polyclinics.

The AFMS also provides medical coverage to personnel of National Cadet Corps, Coast Guard, Territorial Army, etc as well as the Central police/intelligence forces operating in disturbed areas or when placed under the command of the Army.

1.2 Organisational structure

The AFMS is an inter services organisation under the Ministry of Defence, covering Army, Navy and Air Force. At the apex level DGAFMS is assisted by the Directors General Medical Service (DsGMS) for the Army, Navy and Air Force who are responsible for overseeing the functioning of the hospitals of the respective Services. The DsGMS are also the advisers to the respective Service Chief on medical matters and health of the troops. AFMS comprise officers of Army Medical Corps (AMC), Army Dental Corps (ADC) and Military Nursing Services (MNS). AMC also includes non-technical officers and civilians. The manpower of the AMC that was around 40,000 in 1962 was 57,590 as of December 2011.

AFMS operates a country-wide network of Medical Inspection (MI) rooms located in the Units, Station Health Organisations, Family Welfare Centres, General Hospitals, Base Hospitals, Command Hospitals and Specialised Centres in peace stations. In field areas the evacuation of casualties is undertaken through a chain of Regimental Aid Post (RAP), Advance Dressing Station and Forward Surgical Centre at Division level. The RAP is the focal point where the sick and the wounded are primarily treated for basic care and are later evacuated for regular treatment at the tertiary level to a Base hospital or a Command hospital.

Various Teaching/Training institutes within AFMS impart professional and military training to different categories of AFMS personnel. The Medical Stores/Fluids Holding/Supply Units cater for medical stores and transfusion fluids during times of war and peace.

Classification of hospitals

Hospitals in the Army are classified into various categories as ‘Sectional’, ‘Peripheral’, ’Mid Zonal’, ‘Zonal’, ‘Command’, ‘Army Hospital (Research & Referral)’, based on bed strength and extent of availability of specialties as detailed in Table 1 below:

Table- 1: Classification of hospitals under the Army

Category of Hospital	Bed Strength	Manpower Authorised
Sectional	**10 to 24**	Medical Officers (MO) as per Peace Establishment (PE)
Peripheral	**25 to 99**	MOs as per PE plus 4 specialists
Mid Zonal	**100 to 299** Bed strength calculated as 1.5% of total garrison Key Location Plan (KLP) plus 0.70% of garrison strength of dependent peripheral hospitals.	MOs as per PE plus nine specialists
Zonal	**Above 300** Bed strength calculated as 1.5% of the total garrison KLP strength plus 0.2% of garrison strength of the dependent peripheral and mid-zone hospital.	MOs as per PE plus twenty one specialists
Command	The bed strength is calculated as 1.5% of the local Garrison KLP strength plus 0.2% of strength of all garrisons in the Command to provide for specialist beds.	Largely have all specialists and super specialists.
AH R&R	The bed strength is calculated as 0.1% of the total strength of Armed Forces of Officers and Personnel Below Officers Rank (PBOR)	It has specialists and super specialists when compared to Command Hospitals.
MH CTC	Established on a separate PE is a super specialist hospital tasked with treatment of Armed Forces Personnel/dependents for Cardio-Thoracic disease including TB and treatment of patients requiring cardiac surgery.	

Training institutions

The Armed Forces Medical College, Pune (AFMC) is the premier training institution of the AFMS established in May 1948. Other select hospitals such as AH (R&R), CH (AF) Bengaluru and INHS Ashwini Mumbai also impart post graduate training to the AMC officers. The College of Nursing at AFMC conducts a four-year degree course in Nursing.

1.3 Audit objectives

The Performance Audit was conducted to obtain reasonable assurance that:

- Fund allotments made to various echelons were based on sound budgetary formulation and the financial management conformed to the general financial rules;
- Hospitals are adequately manned with doctors, nurses and paramedical staff and are equipped with modern medical equipment;
- Sound practices existed for ensuring economy in procurement, inspection and timely supply of drugs to hospitals/ patients;
- Hospital administration including bio medical waste management was effective; and

- The nascent organisation of ECHS has been provided with necessary infrastructure, medical equipment, drugs and human resources.

1.4 Audit criteria

Audit criteria for evaluation of performance were derived from purchase procedures contained in Defence Procurement Manual, Annual Acquisition Plans of the DGAFMS, Delegation of Financial Powers, Army Orders, Ministry's instructions, statutory provisions, Medical Equipment scale, norms governing Peace and War Establishments, classification of expenditure and SOP[2]s formulated by the DGAFMS and DGsMS.

1.5 Scope of audit

The Performance Audit covering the period 2006-07 to 2010-11 was carried out from January 2011 to November 2011 at DGAFMS, DGsMS (of Army, Air Force and Navy), Managing Director, ECHS, four[3] of the seven Base hospitals, four[4] of the six Command hospitals (3 Army & 1 AF), four Speciality Centres[5] (3 under Army and 1 under Navy), all the four Armed Forces Medical Stores Depots, 26[6] hospitals (24 of Army, including four Field hospitals and one each of Air Force/Navy), Advanced Medical Stores Depot Udhampur, Armed Forces Medical College Pune, three DGQA[7] Units viz. CQA[8](M)/CQA(GS) Kanpur and SQAE[9] Delhi. In respect of the ECHS, the Performance Audit covered MD ECHS and 51 ECHS Polyclinics (21 at military stations and 30 at non-military stations).

1.6 Audit methodology

After a preliminary study conducted at the Directorate General AFMS and in one military hospital to collect background information, the Performance Audit commenced with an entry conference held with DGAFMS on 28 December 2010. Detailed audit scrutiny was conducted at the units selected for sample coverage during the period January 2011 to November 2011 as indicated in para 1.5 above, to evaluate the performance against the audit criteria. Replies to the audit observation issued in the course of audit have been taken into account while finalising this report. The draft

[2] Standard Operating Procedures
[3] Base Hospitals Lucknow, Delhi, Barrackpore, Srinagar
[4] Command Hospitals Pune, Chandimandir, Bengaluru and Udhampur
[5] Army Hospital (RR) Delhi, Military Hospital, Cardio Thoracic Centre, Pune, Artificial Limb Centre Pune and INHS Ashwini, Mumbai
[6] MHs-Allahabad, Jammu, Ambala, Jodhpur, Kirkee, Shillong, Jabalpur, Agra, Amritsar, Gangtok, Jaipur, Deolali, Akhnoor, Gaya, Alwar, Lebong, Nagrota, Dharamshala, Talbehat, Umroi, Coimbatore and INHS Jeevanthi; Field Hospitals Srinagar, Jodhpur, Allahabad and Jallandhar
[7] Director General Quality Assurance
[8] Controller of Quality Assurance
[9] Senior Quality Assurance Establishment

Performance Audit report was issued to the Defence Secretary in February 2012. The important audit findings were discussed in an exit conference held with the representatives of the Ministry of Defence and DGAFMS on 06 July 2012. The Ministry's response to the recommendations made by us is also incorporated in this report.

1.7 Acknowledgement

We gratefully acknowledge the full co-operation of the Director General, Armed Forces Medical Services and his officers and staff as also the officers and staff of all the units visited by us.

Chapter II: Financial management

Audit objectives:
To assess whether:
- **Fund allotments made to various echelons were based on sound budgetary formulations; and**
- **Allotment under Capital head was adequate for modernisation of the hospitals through the annual acquisition plan.**

2.1 Flow of funds

The DGAFMS is allotted budget mainly under the following two Major heads for procurement of medical stores:

(i) Minor heads 103 for "other equipment" and 107 for "ECHS" under Major Head 4076- Capital Outlay on Defence Services; and

(ii) Minor Head 110 D – "Medical Stores" under Major Head 2076- Army (Revenue).

The procurement under Capital budget is done by the DGAFMS, while the funds under Revenue head is to be sub allotted based on the previous year's demands and demands projected by the spending units. The DGAFMS centrally controls all procurement of medical equipment costing ₹10 lakh and above, each with a shelf life of seven years and more, and determines their issue to the hospitals. The revenue expenditure relates to procurement of equipment of revenue nature, repairs and maintenance of medical equipment and procurement of medical stores like drugs, kits and surgical disposables.

Revenue grant allotment for medical services in respect of the Army is received by DGAFMS through Director General Financial Planning of Army Headquarters. Such allotments are made separately for central purchases and local purchases. In the case of the Navy, Air Force, Border Roads, Defence Research & Development Organisation and others, who are treated as payment indentors, the transactions of the utilised budget are adjusted in the same financial year.

The procurement of medical stores is carried out through two methods, namely, central purchase and local purchase. Central purchase comprises purchases by DGAFMS and AFMSD[10]s at Delhi, Mumbai and Lucknow which mainly includes supplies under rate contracts and purchase from Pharma Central Public Sector Enterprises (CPSE).

[10] Armed Forces Medical Stores Depot

The responsibility of local purchases of drugs, kits and consumables is distributed among the three[11] AFMSDs and seven[12] hospitals declared as independent of these AFMSDs. Together, they are called Direct Demanding Officers (DDOs). The remaining hospitals, Advanced Medical Stores Depot (AMSD)/ FMSD[13]s are dependent on these AFMSDs for their requirements. However, they are also empowered to make emergent purchases if AFMSDs indicate non availability of medicines

The repair responsibility of medical equipment is shared between DGAFMS and EME Branch of Army.

2.2 Trends in capital and revenue expenditure

During 2006-07 to 2010-11, the allotment and expenditure under Capital & Revenue Heads showing expenditure on pay and allowances (Services and ECHS), Local Purchases (LP), Central Purchases (CP) and other Grants was as under:

Table- 2: Allotment & expenditure under Capital and Revenue

(₹ in crore)

Head	2006-07		2007-08		2008-09		2009-10		2010-11	
	Allotment	Expenditure	Allotment	Expenditure	Allotment	Expenditure	Allotment	Expenditure	Allotment	Expenditure
CAPITAL										
Services	93.00	94.76	70.00	78.44	60.00	63.75	70.00	77.47	100.00	107.27
ECHS	23.20	20.22	8.10	9.65	9.50	7.57	6.40	5.91	3.60	2.82
REVENUE										
P&A^ Service Personnel		1982.42		2043.06		2169.82		3309.59		3851.86
P&A Civilians		116.36		115.75		158.71		210.88		204.67
LP Army	136.10	136.72	164.25	163.21	214.30	209.44	247.70	245.63	283.05	280.05
LP Navy	8.78	8.43	17.05	19.20	29.00	28.88	29.57	27.87	40.00	34.29
LP A/F	12.85	14.37	18.54	20.37	25.84	28.62	36.30	37.17	48.29	48.31
CP	254.00	268.29	316.00	320.28	280.00	294.18	289.20	286.90	281.00	287.29
Other Grants	NA	NA	35.82	35.81	30.53	30.54	41.42	35.96	42.20	42.19
ECHS	324.14	321.60	489.91	482.82	640.14	638.75	889.92	891.96	1061.04	1055.31

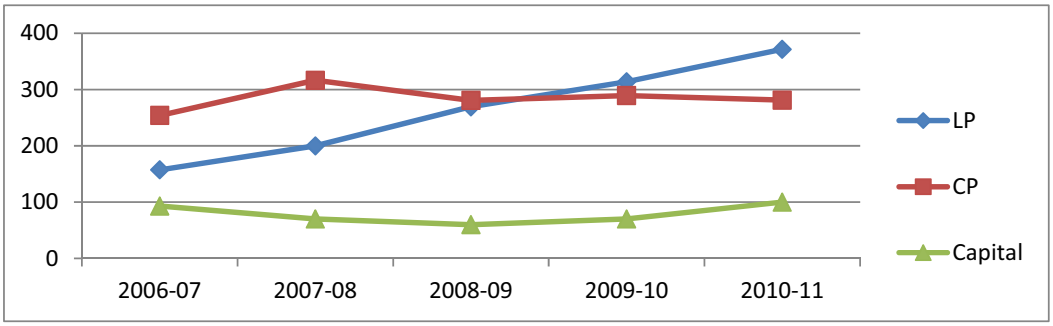
^Service personnel = Officers + MNS + PBORs
Source of data: P&A Service personnel based on per capita rate, ECHS – Appropriation Accounts and P&A Civilians – Defence Service Estimates.
Allotment of CP and LP for Army – DGAFMS; LP for Navy and Air Force – Respective DGMS.
Expenditure – Controller General of Defence Accounts (CGDA) compilation report.

The above table indicates a significant shift from CP by DGAFMS and AFMSDs to LP by DDOs and hospitals. The allotments[14] for CP increased marginally by 11 *per*

[11] AFMSD Lucknow, Mumbai and Delhi
[12] Command Hospitals Pune, Chandimandir, Lucknow, Kolkata and Bengaluru, INHS Ashwini and Army Hospital (Research and Referral) Delhi
[13] Advance Medical Stores Depot/ Forward Medical Stores Depot
[14] Since there has been insignificant surrender of allotments, it would be reasonable to assume that trends in allotment also truthfully reflected the trends in expenditure.

cent during the period 2006-07 to 2010-11 whereas allotments for LP in the same period, for all the three Armed Forces, registered a significant increase of 135 *per cent,* rising from ₹157.73 crore in 2006-2007 to ₹371.34 crore in 2010-11.

As a result, the share of CP which constituted 62 *per cent* of total procurements in 2006-07 gradually declined to 44 *per cent* in 2010-11 and that of LP went up from 38 *per cent* in 2006-07 to 56 *per cent* in 2010-11. This trend is brought out more explicitly in the graph below:



DGAFMS clarified that the increase in allotment of funds for local purchases was due to change in prescription pattern for the medicines, and was necessitated by need to make available medicines in time to consumer hospitals for distribution to the patients and to reduce delay in starting medication.

While need to minimise delay in making medicines available to the patients is undeniable there was no documentary evidence available in DGAFMS of any deliberation over this problem leading to a conscious shift towards more local purchases. The trend of budget allocations matching shifting pattern of expenditure contrary to declared position in favour of centralised procurement and its obvious advantages in terms of quality and cost underlines the *ad hocism* that appears to have overtaken the budgetary decisions in AFMS. Clearly, DGAFMS needs to take stock of this situation and bring harmony between budgetary operations and the procurement policy of AFMS.

2.3 Lack of sound budgetary formulations at any level

Our examination revealed that the annual projection of funds by the DGAFMS for the revenue expenditure was generally unsupported by sound budget formulation exercise by their hospitals.

Considering that the dependencies/beneficiaries of a particular hospital are largely stable over short and medium term, annual increases or decreases in allotment of funds across hospitals did not show any recognisable and stable pattern as indicated in subsequent paragraphs. In respect of 37 hospitals/units the allocation had doubled between 2007-08 and 2010-11 and procurement budgets of individual hospitals increased from 100 *per cent* (MH Fatehgarh) to 339 *per cent* (MH Yol) as shown in Table 3 below:

Table- 3: Details of increase in allotment#

(₹ in lakh)

Depot/ Hospital	Beds	Allotment and Expenditure under LP during								Increase in allotment in 2010-11 compared to 2007-08 (in percentage)
		2007-08		2008-09		2009-10		2010-11		
		Allot - ment	Expen- diture	Allot - ment	Expen- diture	Allot - ment	Expen- diture	Allot - ment	Expen- diture	
Southern Command										
57 FMSD		30	30	50	50	65	65	65.6	65.50	**119**
CH SC	1082	915	915	1352.8	1352.8	1717.1	1717.1	1944.5	1944.5	**113**
MH Saugor	198	17.5	17.5	53	53	58	58	58	58	**231**
MH Panaji	96	20	20	50	50	50	50	43.5	43.5	**118**
MH Kirkee	846	175	175	311.25	311	380	380	439.7	439.7	**151**
MH Kamptee	149	11	11	18	18	23	23	30	30	**173**
MH Jamnagar	99	6	6	12	12	13	13	18.3	18.3	**205**
MH Deolali	280	36	36	66	66	91	91	104.2	104.2	**189**
MH Belgaum	149	36	36	51	51	71	71	76.8	76.64	**113**
MH Avadi	49	8.5	8.5	13	13	15	15	21.6	**21.6**	**154**
Eastern Command										
38 AMSD		145	145	145	145	145	145	301.2	301.2	**108**
58 FMSD		68	68	118	118	118	118	172.7	172.7	**154**
ECTC Kolkata		15	15	15	15	20	20	52.4	52.4	**249**
181 MH	198	10	10	26	26	31	31	37	37	**270**
CH EC Kolkata	760	600	600	975	975	1045	1045	1209.5	1209.5	**102**
MH Panagarh	149	16.75	16.75	24.75	24.75	30	30	44.1	44.1	**163**
MH Shillong	297	30	30	50	50	50	50	73.5	73.5	**145**
Western Command										
AH (R&R)	860	2521.6	2521.6	3397	3397	4942.5	4942.5	6189.6	6234.96	**145**
MH Amritsar	199	47	47	90	90	145	125	146.2	125.80	**211**
159 GH	300	62	62	92	92	102	102	125	125	**102**
MH Patiala	248	27	27	52	52	62	62	87	87	**222**
MH Palampur	125	12	12	12	12	15	15	30.05	30.05	**150**
MH Yol	241	20.5	20.5	67.5	67.5	80	80	90	90	**339**
Central Command										
CH CC Lknw	780	570	570	1098.5	1098.5	1098.5	1098.5	1456.1	1456.1	**155**
MH Allahabad	290	26	26	42	42	77	77	95	95	**265**
MH Bareilly	495	135	135	178.25	178.25	210	210	313.36	313.36	**132**
MH Danapur	199	33	33	58	58	66	46.75	77.5	77.5	**135**
MH Fatehgarh	116	23	23	48	48	48	36.38	46	46	**100**
MH Gaya	98	11.5	11.5	24.5	24.5	24.5	24.5	32.3	32.3	**181**
MH Meerut	545	155	155	210.25	210.25	265	265	355.7	355.7	**129**
MH Mhow	149	37	37	60	60	73	73	78.5	78.5	**112**
MH Namkum	775	108	108	182.6	182.6	200	200	230.1	230.1	**113**
MH Mathura	190	50.02	50.02	80.02	80.02	85	85	106	106	**112**
South Western Command										
MH Jaipur	166	70	70	148.5	148.5	180	180	226.7	226.7	**224**
MH Kota	149	26.95	26.95	41	41	56	56	59.7	59	**122**
187 MH	139	22	22	44	44	44	44	44.9	44.9	**104**
55 FMSD		40	40	40	40	70	70	82.9	82.9	**107**

#Source of data - DGAFMS/DGFP
Note: Table 3 includes hospitals covered and other hospitals where allotment had doubled.

This is further illustrated by our observations in various hospitals as indicated below:

MH Saugor - a 198-bedded hospital - had an allotment of only ₹17.5 lakh in 2007-08, which increased to ₹53 lakh next year. From 2008-09 to 2010-11, however, the allotment has remained more or less static.

MH Amritsar - a 199-bedded hospital - which had an allotment of ₹47 lakh in 2007-08, had their allotment increased to ₹90 lakh next year. In 2009-10, the allotment had increased further to ₹1.45 crore, hovering in that range during 2010-11.

In nine units, namely MH Saugor, MH Jamnagar, EC TC Kolkata, 181 MH, MH Amritsar, MH Patiala, MH Yol, MH Allahabad and MH Jaipur, the allotments had trebled by 2010-11 in comparison to 2007-08.

As opposed to increases, there were nine cases of reduction in allotments over this period. The reduction in allotment for hospitals by 2010-11 with reference to 2007-08 had ranged from one *per cent* (158 BH) to 38 *per cent* (MH Faizabad). The reduction was quite substantial in respect of AFMSD Lucknow being 57 *per cent* and 20 *per cent* each in respect of AFMSDs Delhi and Mumbai as detailed below:

Table- 4: Details of decrease in allotment@

(₹in lakh)

Sl. No	Depot/ Hospital	Allotment and Expenditure under LP during								Percentage increase as of 10-11 w.r.t. 07-08
		2007-08		2008-09		2009-10		2010-11		
		Allot - ment	Expen- diture	Allot - ment	Expen- diture	Allot - ment	Expen- diture	Allot - ment	Expen- diture	
									-	-
AFMSDs										-
1	Lucknow	399.1	399.1	400	400	400	400	173.2	173.2	**-57**
2	Delhi Cantt	595.85	595.85	625	625	550	550	478.7	478.7	**- 20**
3	Mumbai	253.12	253.12	265	265	290	290	202.4	202.4	**- 20**
4	Pune	100	100	100	100	110	110	95.8	95.8	**-4**
Eastern Command										
5	158 BH	165	165	166.75	166.75	150	150	162.57	162.57	**- 1**
6	56 FMSD	35	35	40	40	30	30	25.54	25.54	**- 27**
Western Command										
7	AFC Delhi	411.87	411.87	411.87	411.87	412	423.23	358.6	358.6	**- 13**
Central Command										
8	MH Faizabad	33.5	33.5	58.5	58.5	58.5	31.14	20.9	20.9	**- 38**
South Western Command										
9	184 MH	25.5	25.5	25.5	25.5	25.5	25.5	22.2	22.2	**- 13**

@Source of data - DGAFMS/DGFP

We did not come across any evidence to suggest that such increases or decreases in allotments detailed above were supported by proper budgetary exercises done at the level of the hospitals or were the results of well thought out strategies in the office of the DGAFMS.

Out of the hospitals selected by us for the Performance Audit, in 18 hospitals we made an effort to analyse and explain the changes in allotment for local procurement

assuming a direct correlation between the expenditure on medicines and the clientele workload in terms of OPD and patient admissions of both service personnel/ESM and their dependents. The results of our analysis are given in Table 5:

Table-5: Increase/decrease in allotment vis-a-vis workload

(₹ in lakh)

Hospital**	2007-08		2008-09		2009-10		2010-11	
	No. of patients	Allotment/ Expenditure	No. of patients	Allotment/ Expenditure	No. of patients	Allotment/ Expenditure	No. of patients	Allotment/ Expenditure
MH Agra	144137	100/100	132459	139/139	139335	150/150	143238	153.6/153.6
variation	**-**	**-**	**-8**	**39**	**5**	**8**	**3**	**2**
MH Gaya	8985	11.5/11.5	20090	24.5/24.5	24659	24.5/24.5	40074	32.3/32.3
variation	**-**	**-**	**124**	**113**	**23**	**0**	**63**	**32**
MH Jodhpur	166541	138/138	180626	161.1/160	182791	188.5/188.5	158588	219.1/219.1
variation	**-**	**-**	**8**	**17**	**1**	**17**	**-13**	**16**
BH Delhi Ct	655102	1382/1382	647702	1312.9/1312.9	668862	1375/1375	708893	1796.8/1796.8
variation	**-**	**-**	**-1**	**-5**	**3**	**5**	**6**	**31**
166 MH	579187	255/255	501423	321.7/321.70	465924	445/445	433146	487.3/487.3
variation	**-**	**-**	**-13**	**26**	**-7**	**38**	**-7**	**10**
MH Ambala	248960	155/155	199454	197.25/197.25	165494	250/250	180741	257.6/257.6
variation	**-**	**-**	**-20**	**27**	**-17**	**27**	**9**	**3**
MH Amritsar	90573	47/47	89980	90/90	96016	145/125	90595	146.2/125.8
variation	**-**	**-**	**-1**	**91**	**7**	**61**	**-6**	**1**
170 MH	75868	16.25/16.25	75889	19.25/19.25	59125	21.5/21.5	58150	32.7/24.7
variation	**-**	**-**	**0**	**18**	**-22**	**12**	**-2**	**52**
CH NC	133317	555/555	132819	678.1/678.1	146102	640/640	109479	887.1/887.1
variation	**-**	**-**	**0**	**22**	**10**	**-6**	**-25**	**39**
AH R&R	386201	2521.58/2521.58	405463	3397/3397	371028	4942.5/4942.5	387359	6189.6/6234.96
variation	**-**	**-**	**5**	**35**	**-8**	**45**	**4**	**25**
MH Alwar	NA	NA	28425	38/38	34946	38/38	39569	45.6/45.6
variation	**-**	**-**	**-**	**-**	**23**	**0**	**13**	**20**
MH Jabalpur	80640	129.45/129.45	84392	177.97/177.97	89892	200/200	NA	214.1/214.1
variation	**-**	**-**	**5**	**37**	**7**	**12**	**-**	**7**
MH Allahabad	84636	26/26	114757	42/42	138437	77/77	NA	95/95
variation	**-**	**-**	**36**	**62**	**21**	**83**	**-**	**23**
92 BH	93366	176/177	91949	236/236	100707	236/236	NA	235.4/235.4
variation	**-**	**-**	**-2**	**34**	**10**	**0**	**-**	**0**
MH Deolali	77142	36/36	74958	66/66	79586	91/91	NA	104.2/104.2
variation	**-**	**-**	**-3**	**83**	**6**	**38**	**-**	**15**
178 MH	7679	21/21	8038	21/21	20365	26/26	NA	22.7/22.7
variation	**-**	**-**	**5**	**0**	**153**	**24**	-	**-13**
CH SC	231773	915/915	250456	1352.8/1352.8	255650	1717.05/1717.05	NA	1944.5/1944.5
variation	**-**	**-**	**8**	**48**	**2**	**27**	**-**	**13**
CH WC	389866	1120/1120	395577	1466/1466	405696	1666/1666	NA	1490.1/1490.1
variation	**-**	**-**	**1**	**31**	**3**	**14**	**-**	**-11**

***Source of data - DGAFMS/DGFP/Hospitals*

NA – Data Not Available, Variation shown is in percentage.

In six hospitals viz., MH Gaya, MH Amritsar, MH Deolali, AH (R&R), MH Allahabad and CH SC though the allotment has doubled during 2007-08 to 2010-11 as reflected in Table 3, the clientele had not increased to that extent barring MH Gaya.

In the 18 hospitals for which data was analysed, there was no correlation between the workload and allotment of funds. In some allotment/expenditure declined even though number of patients treated increased, while in some hospitals the position was reversed.

In the absence of formulation of Budget Estimates at the hospital level no rationale or otherwise of the asymmetrical correlation between increase/decrease and budget/expenditure of the hospitals could be established. The inescapable conclusion which can be drawn from this position is that in general, the allocation of funds to hospitals under LP was characterised by *ad hocism*.

AFMSDs Delhi, Mumbai and Lucknow cater to a large dependency, comprising hospitals, FMSD and AMSDs for supply of drugs and consumables. The allotment of funds to these AFMSDs under LP was considerably reduced during the years 2007-08 to 2010-11 as shown below:

Table- 6: Table indicating allotment & expenditure under LP to AFMSDs

(₹ in lakh)

Name of Depot	Allotment and Expenditure under LP during								Percentage decrease as of 10-11 w.r.t. 07-08
	2007-08		2008-09		2009-10		2010-11		
	Allot - ment	Expen- diture	Allot - ment	Expen- diture	Allot - ment	Expen- diture	Allot - ment	Expen- diture	
AFMSD Lucknow	399.10	399.10	400	400	400	400	173.2	173.2	**57**
AFMSD Delhi Cantt	595.85	595.85	625	625	550	550	478.7	478.7	**20**
AFMSD Mumbai	253.12	253.12	265	265	290	290	202.4	202.4	**20**
Total	**1248.07**	**1248.07**	**1290**	**1290**	**1240**	**1240**	**854.3**	**854.3**	**32**

#Source of data - DGAFMS/DGFP

We observed that a large part of the funds allotted by the DGAFMS to AFMSD Mumbai for local procurements of drugs, surgical instruments, laboratory stores, etc. were utilised by the latter to defray expenditure on repairs/ annual maintenance contracts (AMC) of medical equipment. The expenditure on AMC was not being captured under a distinct object head although procurement of stores and repairs and maintenance of equipment are different activities. This is borne out by following analysis of the expenditure of AFMSD Mumbai for the year 2010-11.

Table- 7: Details of expenditure booked under LP by AFMSD Mumbai

Sl. No.	Details of expenditure	Amount ₹	Percentage to total expenditure
1	AMC of equipment	10935779	58
2	Repairs of equipment	530142	3
3	Procurement under RC	783121	4
4	Non medical stores	1001439	5
5	Drugs against NAC	874348	5
6	Local purchase of drugs by AFMSD	4711024	25
	Total expenditure	**18835853**	

It was further noticed that the procurement of non-medical stores, viz. furniture, maintenance of computer and battery-operated trucks by AFMSD Mumbai were also accounted for as local purchase of medical stores.

The present system of classification of expenditure by clubbing both the types of expenditure against budget allotment for local purchase tends to increase opacity in financial reports of AFMS.

Allotment for central purchase

The budgeted fund under CP allotted to DGAFMS and the AFMSDs as well as expenditure incurred thereagainst was as under:

Table-8: Allotment & expenditure under CP#

(₹in crore)

Agency	2007-08		2008-09		2009-10		2010-11		Percentage increase (+)/ decrease (-) in allotment in 2010-11 compared to 2007-08
	Allot-ment	Expe-nditure	Allot-ment	Expen-diture	Allotm-ent	Expen-diture	Allot-ment	Expen-diture	
DGAFMS	191.07	207.65	66.75	110.96	89.50	109.25	105.09	126.90	-45
AFMSD Delhi	64.75	64.75	105.00	105.00	98.00	99.79	88.54	88.54	+37
AFMSD Mumbai	16.00	16.00	35.50	35.70	38.00	32.79	33.66	32.85	+110
AFMSD Lucknow	35.50	35.50	58.00	58.00	48.00	41.25	36.31	36.31	+2
AFMSD Pune	1.20	1.20	1.18	1.18	1.75	1.71	1.69	1.66	+41
AFTC[15]s	7.48	7.48	13.57	13.57	13.95	9.21	15.71	14.64	+110
Total	**316.00**	**332.58**	**280.00**	**324.41**	**289.20**	**294.00**	**281.00**	**300.90**	**- 11**

#Source of data - DGAFMS

The CP allotment to DGAFMS/AFMSDs/AFTCs has decreased by 11 *per cent* despite an increase in the overall allotment under revenue head by 26 *per cent* from 2007-08 to 2010-11 as indicated in Table 2 above.

Low materialisation of medical stores at Service hospitals and ECHS polyclinics and inadequate provision for repair and maintenance needs of medical equipment, as

[15] Armed Forces Transfusion Centre

explained in the subsequent chapters, amply underscore the need for proper budgetary practices in AFMS.

Recommendation No 1

All hospitals and AFMSDs may formulate budget estimates to project their requirement of funds keeping in view the workload and past trends of expenditure. DGAFMS may allot funds based on such estimates. Funds may be allotted separately for maintenance and repairs of hospital equipment.

The Ministry agreed to strengthen the budgetary system.

2.4 Disconnect between Annual Acquisition Plan and budget allotment

Annual Acquisition Plan (AAP) reflects the plan for procurement of equipment for modernisation of AFMS covering both revenue and capital items. We observed that over a period of time, inadequate budgetary allotments under Capital Head has created a wide gap between the needs as reflected in the capital portion of AAP and actual procurement done as indicated by the following table.

Table- 9: Allotment vis-a-vis orders placed under Capital#

(₹ in crore)

Year	AAP requirement	Backlog of AAP	Allotment	Orders placed (AAP)	Cumulative backlog
2006-07	247.34	-	93.00	18.38	228.96
2007-08	88.06	228.96	70.00	27.25	289.77
2008-09	180.70	289.77	60.00	39.46	431.01
2009-10	278.91	431.01	70.00	60.81	649.11
2010-11	367.01	649.11	100.00	72.71	943.41

#Source of data - DGAFMS

A huge backlog of ₹ 943.41 crore existed as of March 2011against the approved AAP. This made the plans largely irrelevant, so far as procurement of capital items is concerned. There was apparently a huge disconnect between the approved AAP and the allotment of funds.

The Ministry in their reply denied that funds were a constraint for fulfilling the AAP. It was argued that AAP was in the nature of a revolving plan which need not have corresponding budget provision for all cases reflected in it and that it cannot be linked to budget allocation because gestation period of more than one year involving vendor lead time and delivery period result in utilisation of budget only when cash outgo materialised.

Without discounting the argument of the Ministry that budget allotment/expenditure cannot have a complete correlation owing to procurement action spill over, it may be pointed out that the table above brings out in abundant measure the fact that annual allotments were only a small fraction of the AAP backlog and the value of orders placed is even lower leaving a huge gap between the AAP, financial planning and procurement action. This is a reality which is stark and disturbing and cannot be explained away by the Ministry's arguments.

Recommendation No 2

The Ministry and DGAFMS may rationalise the Annual Acquisition Plans after a review of actual requirements and implement the AAP in a time bound manner to modernise the hospitals.

Chapter III: Human Resources

Audit objectives:
To assess whether:

- **Doctors, nurses and paramedical staff in hospitals were available as planned and were rationally deployed; and**
- **Measures taken to ensure retention of medical specialists in Armed Forces were adequate and effective**

3.1 General

Manpower in medical services is a critical component having a direct bearing on patient care. Over the years the mandate of AFMS has been extended to include medical coverage for families and dependents of service personnel, paramilitary organisations and, from 2003 onwards, ex-servicemen and their dependents.

There have been periodic revisions of manpower in AFMS based on studies carried out by various committees, such as Lt Gen Foley Committee, Lt Gen Chandrasekhar Committee, Bhardhwaj Committee on the requirement of specialists and super specialists for AFMS. The report of the Parliamentary Standing Committee on Ministry of Defence, tabled in the Lok Sabha in August 2006 recommended, *inter alia*, appointment of a high level committee to comprehensively review and re-assess the overall increase in work and responsibilities of AFMS and to suitably recommend ideal strength for each cadre.

The high level committee of DGAFMS in its report of September 2006, after reckoning the limitations of the existing norms of manpower to adequately handle the workload and the requirement of specialities at peripheral and mid zonal hospitals and super specialities at different levels of hospitals, recommended an increase of 28,306 officers and personnel to be recruited in a phased manner. While approving in principle, an increase of 10,590 (Officers 3348, PBORs 7042 and Civilians 200) the Ministry, in May 2009, authorised an increase of 3530 personnel in AFMS in the first phase by creation of the following posts:

Table- 10: Details of manpower sanctioned by Government

Category	Army	Navy	Air Force	Dental	Total
Officers	326	21	60	25	432
MNS Officers	547	62	75	-	684
PBORs	2021	90	159	77	2347
Civilian	56	-	4	7	67
Total	**2950**	**173**	**298**	**109**	**3530**

Based on the Ministry's sanction of May 2009 the DGAFMS reported, in July 2009, the hospital-wise distribution of manpower to the Service Chief concerned. The appropriate authorities were to release vacancies to ensure that all recruitment activities are completed by December 2011 for induction of the sanctioned manpower by April 2012. The position of deployment against the manpower authorised in AFMS (excluding Dental Corps) as on 31 March 2011 was as under:

Table- 11: Manpower posted against authorisation (as on 31.3.2011)

Category	Army		Navy		Air Force		Total	
	Authorised	Posted Strength	Authorised	Posted Strength	Authorised	Posted Strength	Authorised	Posted Strength
Officers	5043	4725	536	513	704	665	6283	5903
MNS officers	3244	3082	289	242	383	289	3916	3613
PBORs	48976*	45759*	2177	1968	4194	3838	55347	51565

*(*As on 31.1.2011 as furnished by AMC Record office)*

Authorisation of Medical Officers

Medical Officers in AFMS are inducted through Armed Forces Medical College (AFMC) Pune and also recruited by DGAFMS from the civil sector by grant of Permanent Commission (PC) and Short Service Commission (SSC). Position of holding, appointment and retirement during 2006 to 2010 was as follows:

Table- 12: Appointment and attrition of MOs

Year	Held as on 1 January	Appointed					MOs left services due to					Total held
		PC	SSC	Civil	SSC to PC	Total	Retirement	Premature Retirement	Resignation		Total	
									PC	SSC		
2006	5221	58	38	203	85	299	58	53	5	111	227	5293
2007	5293	64	54	217	78	335	72	61	12	97	242	5386
2008	5386	54	50	241	113	345	74	65	10	98	247	5484
2009	5484	64	43	461	112	568	58	60	1	58	177	5875
2010	5875	62	29	183	90	274	97	79	6	64	246	5903
Total		**302**	**214**	**1305**	**478**	**1821**	**359**	**318**	**34**	**428**	**1139**	

Shortage of Medical Officers

Position of MOs/Specialists against authorisation at the various hospitals of the Army, Air Force and Navy indicated an overall shortage of 12 *per cent* in the category of MOs as shown below:

Table- 13: Position* of MOs/Specialists at hospitals

Hospitals	Beds	Auth as per PE			Actual Posted as on 31-3-2011			Surplus/ Deficiency	Percentage Surplus/ Deficiency
		MO	Spl	Total	MO	Spl	Total		
Peripheral	2110	103	85	188	136	40	176	-12	-6
Mid Zonal	8556	401	304	705	306	264	570	-135	-19
Zonal	13940	462	522	984	436	459	895	-89	-9
Command & Spl Centres	5390	237	272	509	288	411	699	+190	+37
Army (1 to 4)	29996	1203	1183	2386	1166	1174	2340	-46	-2
Field Hospitals	4050	900	180	1080	675	20	695	-385	-36
Naval	1937	83	97	180	NA	NA	183	+3	+2
Air Force	2345	105	117	222	42	125	167	-55	-25
Grand Total	**38328**	**2291**	**1577**	**3868**	**--**	**--**	**3385**	**- 483**	**-12**

**Data compiled from information furnished by DGMS (Army), DGMS (Navy) and DGMS (Air Force)*

Barring the Tertiary care hospitals (Command and Speciality centres), deficiency existed in the chain of medical care of Army at Field Hospitals (36 *per cent*), Peripheral Hospitals (6 *per cent),* Mid Zonal Hospitals *(*19 *per cent)* and Zonal Hospitals (9 *per cent*). Even among the Command and Specialist hospitals the posted strength varied from (-) 25 *per cent* in Udhampur to (+) 93 *per cent* in R&R Hospital Delhi. The cumulative deficiencies in Field, Peripheral, Mid Zonal and Zonal hospitals as against surpluses in Tertiary care units indicated the need for rationalising the posting of the MOs against authorisation.

Further comparison of intra availability of MOs in the three services revealed that while there was surplus of 2 *per cent* at Naval Hospitals, the deficiency at Air Force hospitals was as high as 25 *per cent* and at Army hospitals it was 2 *per cent.* Thus distribution of MOs among the three services and within the Primary, Secondary and Tertiary Care establishments was not rational and called for redeployment.

3.2 Recruitment through AFMC

Training capacity for the MBBS course at Armed Forces Medical College (AFMC) is 140 that includes five seats for foreign students. On successful completion of the course the candidates are given Permanent Commission (PC) or Short Service Commission (SSC) based on merit cum option.

All medical cadets at the time of joining the AFMC are to sign a bond agreement giving an undertaking to serve the AFMS on their selection either as Permanent Commission or Short Service Commission[16]. Candidates who opt out of this service liability are required to pay, as per the agreement, bond money of ₹ 15 lakh as fixed by the Ministry in September 1998.

The total number of cadets who opted out of the service liability, after passing out of the AFMC, has been increasing as seen from the table below:

Table- 14: Cadets opting out of service liability

Year	Cadets passed out of AFMC	Cadets opted out of service liability	Percentage of candidates who opted out of service liability
2007	128	4	3
2008	134	24	18
2009	127	17	13
2010	119	28	24
Total	508	73	14

During the commissioning years 2007 to 2010, 73 of the 508 successful medical cadets opted out of service liability by paying the required bond money. The imposition of penalty of ₹ 15 lakh has thus not proved to be a sufficient disincentive in arresting the depletion as evidenced by cadets opting out of service liability which increased from 4 in 2007 to 28 in March 2010.

Considering heavy investment made by the government in training of cadets, DGAFMS needs to arrest/limit the exit of trained medical cadets through a mix of negative (such as raise in bond money) and positive reinforcement measures.

3.3 Pool of specialists

MBBS doctors acquiring appropriate additional qualifications are graded as specialists/ super specialists. In January 2003, the Ministry sanctioned a revised pool of specialists to the AFMS, initially for a period of five years, which was extended subsequently from time to time as under:

Table- 15: Pool of specialists sanctioned

No. of specialists based on bed strength	⇨	1342
No. of super specialists	⇨	210
5 percent cushion for unforeseen requirements after obtaining prior approval of MOD / MOD(Fin)	⇨	78
Annotated appointments (Deployed at formation HQ, AFMC, Field Hospitals etc)	⇨	665
Total	⇨	**2295**

[16] Short Service Commission is of short duration of seven years.

As of March 2011 the specialists/super specialists in position were 1919 against the authorisation of 2217 (2295 minus the reserve of 78) which translated to a deficiency of 14 *per cent*.

We observed that while some disciplines had surpluses number of specialists some others were deficient in this regard. Against the critical deficiencies in the field of Anesthesiology(20 *per cent*), Obst & Gyn (32 *per cent*), General Surgery(14 *per cent*) and Orthopedic Surgery (57 *per cent*), significant surpluses were noticed in Microbiology (250 *per cent*), Pharmacology (275 *per cent*) and Physiology (133 *per cent*). *Prima facie* the surpluses relate to teaching profession while deficiencies persist in functional disciplines like Anesthesiology, Gynecologists and General Surgery.

As detailed in the foregoing Table 13, the posting vis-à-vis authorisation in Peripheral, Mid Zonal, Zonal and Command hospitals indicated a highly skewed deployment pattern of specialists. While there were very high to significant number of shortages in Field hospitals (89 *per cent*), Peripheral hospitals (53 *per cent*), Mid zonal hospitals (13 *per cent*) and Zonal hospitals (12 *per cent*), deployment at Command and Speciality hospitals at Chandimandir, Kolkata, Lucknow, Pune and Delhi was in excess by 60 *per cent* and the overall surplus in Command and Speciality hospitals was to the extent of 51 *per cent*.

Further, hospital-wise analysis of deployment of specialists indicated that in eight hospitals viz. MH Lebong, Varanasi, Dharangadhara, Jalipa, Lansdowne, Kasauli, Missamari and Palampur, against the authorised strength of five specialists each, no specialists were available. In three Peripheral hospitals at Alwar, Faridkot and Samba, only one specialist each was available against five authorised. Shortages of specialists in four zonal hospitals at Ferozpur, Rajouri, Barrackpore and Namkum were to the extent of about 50 *per cent* whereas the Base Hospital Delhi and AH (R&R) Delhi had an excess each of more than 100 *per cent.*

Attrition of specialists from AFMS

During 2006 to 2010, 250 specialists left the service prematurely as indicated below:

Table- 16: Attrition of specialists

Year	Total	Compassionate grounds (C)	Supersession (S)	Low medical classification (L)
2006	41	10	28	3
2007	46	11	35	-
2008	47	7	38	2
2009	52	11	39	2
2010	64	14	50	-
Total	**250**	**53**	**190**	**7**

That maximum attrition of specialists through supersession had occurred in the fields of Anesthesiology, Obstetrics & Gynaecology and Medicine appeared to explain high levels of deficiency of specialists in these disciplines.

The DGAFMS clarified that supersession had occurred due to progressively fewer vacancies in the higher ranks and financial stagnation and added that the problem was being addressed by the training policy of AFMS that seeks to ensure nomination of medical officers for various specialists training in adequate numbers. It was also stated that the promotion policy had been reframed to provide award of additional marks for specialisation and thereby relatively better promotional prospects for specialists/super specialists; nonetheless, some specialists and super specialists were bound to get superseded.

It is, however, apparent that the factors contributing to supersession of specialists do not appear to have been fully and effectively addressed to ensure their retention in service. Surpluses/deficiencies of specialists particularly in various disciplines is indicative of the fact that in the operation of Central Pool of specialists appropriate prioritisation had not given keeping also in view the attrition rates over the years.

Out of 3295 PC officers available in Army as on 31 March 2011, 1623 were specialists (50 *per cent*). During the period 2009-2011, while the availability of MOs had increased from 5484 to 5903, an increase of 419, the number of specialists had gone up by a meagre 25. Further, during the last five-years, the net increase in the number of PC officers has been 69 only as 711 officers were relieved from services due to superannuation, premature retirements and resignation as against 780 appointed during the same period.

Given the limited increase in the number of PC officers, it is imperative that AFMS not only arrest the premature exit of specialists but also proactively encourage PC General Duty Medical Officers to take up requisite specialist courses for which sufficient surplus capacity was available in AFMS.

3.4 Military Nursing Services (MNS) and Nursing Assistant (NA)/ Nursing Technician (NT):

Authorisation and posted strength of MNS and NA/NT

The Military Nursing Service is intended to perform nursing duties in hospitals including family wards. MNS officers also perform administrative duties relating to their service in hospitals and formation HQ.

Nursing Assistant (NA) and Nursing Technician (NT) in the rank of Personnel Below Officers Rank are also available for the performance of nursing duties in hospitals.

The availability of MNS and NA/NT against authorisation during 2010 & 2011 in AFMS was as under:

Table-17: Authorisation and posted strength of MNS and NA/NT

Year	Authorisation@		Posted Strength@		Deficiency		Percentage of deficiency	
	MNS	NA/NT	MNS#	NA/NT*	MNS	NA/NT	MNS	NA/NT
2010	3860	11770	3275	9846	585	1924	15	16
2011	3916	11909	3613	10090	303	1819	8	15

@Data compiled from information furnished by DGAFMS and AMC Record Office
*# As on 31st March * As on 1st January*

Overall deficiency of MNS and NA/NT ranged from 8 to 15 *per cent* and 15 to 16 *per cent* during 2010 and 2011, respectively. In respect of 13 test checked hospitals, the average deficiency in nursing staff was 28 *per cent*, whereas in one hospital (MH Kirkee) it was as high as 45 *per cent* during 2009-10.

3.5 Paramedical staff

Paramedical staff (PMS) comprising Radiographer, Lab Technician, Blood Transfusion Assistant, Operation Room Assistant, X-ray Assistant, Lab Assistant, Physiotherapy Assistant, Safaiwala, etc. is also equally important for patient care. The overall availability of PMS against authorisation as of 1 January 2011 was as under:

Table- 18: Authorised and posted strength of paramedical staff

Hospital/Unit	Authorisation			Posted			Deficiency	
	JCO	OR	Total	JCO	OR	Total	Number	Percentage
Hospitals	1809	19263	21072	1754	17958	19712	1360	6
Field Hospitals	1302	18397	19699	1273	17016	18289	1410	7
SHO/MDC/AFMSDs AMC Centre & Record	482	3960	4442	435	3560	3995	447	10
Units MI Room		3763	3763		3763	3763	-	-
Total	3593	45383	48976	3462	42297	45759	3217	7

The hospital-wise deployment of PMS showed that the distribution of the staff across various hospitals was not uniform and it ranged from a surplus of 80 *per cent* in 168 MH to a deficiency of 67 *per cent* in 15 AF hospital.

DGMS (Army) stated that several measures had been undertaken to overcome the deficiency of PMS in the coming years. These included doubling the training capacity at AMC Centre & College from 2360 to 5000 and imparting of technical training in 13 hospitals in addition to the existing 22 designated hospitals. We are, however, of the view that in the meanwhile the posting of PMS needed rationalisation to even out the deficiencies and surpluses noticed amongst the hospitals.

Discrepancy in data on PMS

The data on posting of PMS as of March 2011 provided by the hospitals was compared with those made available by the AMC Record Office Lucknow. In respect of eight hospitals the figures of posted strength were found to be at variance with those of the Records office as shown below:

Table- 19: Discrepancy in posted strength of paramedical staff

Sl.	Hospital	Posted strength reported by			Difference (3-5)	
		Record	DGMS	Hospital	No.	Percentage
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	163 MH	74	64	26	48	65
2	MH Alwar	99	83	86	13	13
3	170 MH	86	120	89	3	3
4	MH Jodhpur	277	260	256	21	8
5	MH Ambala	327	306	262	65	20
6	BH Delhi Cantt	569	734	541	28	5
7	CH SC Pune	721	714	562	159	22
8	MH Amritsar	117	105	48	69	59

#Data compiled from information furnished by AMC Record Office, DGMS (Army) and Hospitals covered under PA

Evidently there was no reconciliation mechanism in place for ensuring that the actual holdings of hospitals tallied with those recorded by the Records office.

Similar discrepancy existed between the figures reported by DGMS (Army) in respect of and those kept by the Records office. As per Records office, a total of 38,001 PMS have been deployed at various hospitals as of March 2011, whereas DGMS (Army) reported that 35,975 PMS were in position. The significant differences both in respect of excess as well as deficiencies are shown below:

Table- 20: Discrepancy in strength of paramedical staff

Hospital	Posted as reported by		Variation	*	Hospital	Posted as reported by		Variation
	Record	DGMS		*		Record	DGMS	
316 FH	213	254	41	*	315 FH	211	35	176
329 FH	211	261	50	*	328 FH	341	229	112
4016 FH	195	241	46	*	407 FH	193	68	125
403 FH	195	295	100	*	409 FH	193	42	151
422 FH	193	245	52	*	416 FH	193	51	142
MH Sec'bad	282	432	150	*	MH Hissar	165	99	66
92 BH	337	450	113	*	158 BH	334	278	56
166 MH	276	349	73	*	MH Namkum	374	273	101
CH WC	467	568	101	*	MH Kirkee	583	514	69
CH CC	527	644	117	*	MH CTC	395	332	63

**Data have been compiled from information furnished by AMC Records and DGMS (Army)*

Discrepancy in respect of deficiency ranged from 12 *per cent* to 83 *per cent* and in respect of excess it ranged from 19 *per cent* to 53 *per cent.* Such wide variation was indicative of the fact that the management information system at DGMS (Army) was deficient to the extent that it failed to correctly capture the picture of deployment.

A further analysis of holding of MOs, Nurses and 6 critical categories of paramedical staff posted in 19 test checked hospitals, where information was available, revealed that there were disparities in their deployments across various categories with vis-a-vis their respective authorised strengths. In CH SC Pune, CH WC Chandimandir, AH R&R, BH Delhi Cantt and MH Jaipur, while MOs posted were in excess by 64 *per cent*, 14 *per cent*, 93 *per cent*, 129 *per cent* and 107 *per cent*, Nursing staff was short by 39 *per cent*, 30 *per cent*, 21 *per cent*, 3 *per cent* and 25 *per cent.* Paramedical staff was in surplus by 4 *per cent*, 15 *per cent* and 8 *per cent* at CH WC Chandimandir, BH Delhi Cantt and MH Jaipur, respectively whereas it was short by 15 *per cent and 2*3 *per cent* at CH SC Pune and AH R&R.

The skewed pattern of deployment of staff at various levels across hospitals betrayed subjectivity in the assessment of workload and needed to be properly regulated.

Recommendation No 3

DGAFMS may regulate the postings of General Duty MOs, specialists, nursing and paramedical staff in hospitals based on a reasonable assessment of workload. To the extent possible the services of medical specialists and support staff should be made available equitably across the medical chain from Primary to Tertiary Care Centres.

Exodus of medical cadets after passing out from AFMC should be discouraged by adopting a suitable scheme of incentives and disincentives.

The Ministry agreed to implement an effective Management Information System for gathering/disseminating information in respect of deficiency and excess in all categories of staff posted across hospitals and to take remedial measures based on such information.

In regard to exodus of AFMC doctors, the Ministry stated that though provision for payout of ₹15 lakh bond money already existed, suitable incentives could be worked out and put in place to incentivise the cadets to serve the Services.

Chapter IV: Medical equipment management

Audit objectives:
To assess whether:

- **Availability of equipment for patient care matched the authorised scales;**
- **Modernisation of hospitals had progressed as planned; and**
- **Scheme of annual maintenance and repairs to medical equipment were functioning effectively and efficiently to minimise downtime of equipment.**

4.1 General

All medical, dental and veterinary equipment required by the Armed Forces are procured, stocked and issued by the DGAFMS. Medical equipment are characterised by wide range, variety and high rate of obsolescence. Increasing dependence of medical professionals on equipment, both for diagnosis and treatment, demands their availability at all times through a comprehensive and responsive engineering support.

For the purpose of procurement, stocking, issue, repair and maintenance, the medical equipment is categorised as sophisticated equipment, electro-medical equipment and non-electro medical equipment. The 'sophisticated equipment', being state-of-the-art technology, is generally imported. The 'electro-medical equipment' is complex in design and contains electronic circuitry. The 'non-electro medical equipment' is relatively simple in design and covers all mechanical, electrical and optical equipment.

According to the policy adopted by DGAFMS, life of equipment is to be determined on the basis of vintage in case of 'sophisticated' and 'non-electro medical' equipment. For 'electro-medical equipment', the twin criteria of vintage and usage is adopted. In 2010, the policy was revised adopting vintage as the sole basis for all categories of equipment.

To cover the requirement of spares, accessories and maintenance stores during the initial period of warranty, an equipment maintenance system based on the concept of 'Complete Equipment Schedule' is provided along with the equipment by the OEM. On expiry of warranty, the repair and maintenance of all equipment is carried out through local purchase of spares and local repair contracts or Annual Maintenance Contracts (AMC) with trade. The responsibility for repairs to medical equipment is

divided between the DGAFMS and the DGEME as discussed in the succeeding paragraph.

Procurement of equipment

The procurement of medical equipment is governed by Medical Equipment Scale (ME) authorised for each hospital. Equipment falling outside the ME scale is procured on 'as required basis' by submitting a statement of case (SOC) for obtaining approval of the competent financial authority or through the Annual Acquisition Plan (AAP). The AAP indicates the outlay for procurement, the specific kind of equipment required, its quantity and the hospitals covered under the plan and caters to modernisation of the hospitals.

The expenditure on procurement is classified as 'Capital' for all equipment valuing ₹ 10 lakh each or more with a life of seven years or more and as 'Revenue' when these conditions are not satisfied. The procurement of medical equipment of Capital nature is carried out centrally by the DGAFMS and of Revenue nature both by DGAFMS and AFMSDs as per the provisions in the Defence Procurement Manual (DPM). Hospitals by themselves are not allowed to procure any equipment.

For every procurement of medical equipment of Capital nature the Ministry first accords the 'Acceptance of Necessity' (AON) followed by subsequent processes as provided in the DPM. The financial powers delegated in July 2006 by the Ministry for procuring equipment are as under:

Table- 21: Delegation of financial powers

Competent Financial Authority	**Financial Limit**	
Capital Head	**Without IFA concurrence ₹**	**With IFA's concurrence ₹**
DGAFMS	Nil	200 lakh
Revenue Head		
DGAFMS	3 lakh	100 lakh
Addl DGAFMS (E&S)	Nil	50 lakh
Addl. DGAFMS (Medical Research)	1 lakh	5 lakh
AFMSDs (Delhi, Mumbai & Lucknow)	0.10 lakh	10 lakh
AFMSD Pune	0.05 lakh	2 lakh

Procurements exceeding the delegated powers of the DGAFMS are sanctioned by the Ministry.

Stocking echelons

Until February 2010, the stocking and issue of 'electro-medical' equipment was made centrally by AFMSD Pune for all the Services. From March 2010 the responsibility for stocking and issue of such equipment was distributed amongst AFMSD Pune, Delhi and Lucknow. The responsibility for stocking and issue of 'non electro' medical

equipment vest in three AFMSDs viz. those at Delhi, Mumbai and Lucknow as per their command jurisdiction.

Maintenance of 'dues out' record

A hospital places an indent on the AFMSD for supply of equipment as per the ME scale. Indent for equipment is termed 'Initial' when it is to be procured for the first time and 'Maintenance' when in replacement for existing equipment that has outlived its prescribed life. After assessing whether the demand for equipment can be met from the stock held, the AFMSD consolidates the indents received from various Units for procurements of equipment under the said two categories separately to arrive at the net deficiency, which is termed as 'Dues Out'. The dues out against initial indents are known as 'Initial Dues Out' and those against maintenance indent as 'Maintenance Dues Out' which is projected to the DGAFMS in the Annual 'Dues Out' report for procurement. As per DGAFMS policy of May 1965 the dues out are to be maintained separately against initial indents and maintenance indents.

Procurement under Capital & Revenue Heads

Details of the orders placed for procurement of equipment by DGAFMS during 2006-11 under Capital head and Revenue head were as follows:

Table- 22: Procurement of equipment

(₹ in crore)

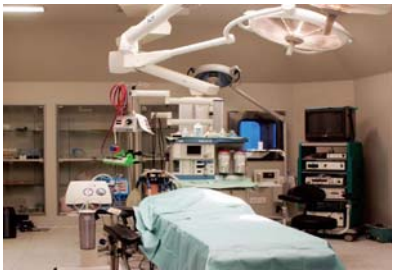
Year	Procurement of Equipment under		Total procurement
	Capital Head (4076-103-908/44)	Revenue Head (2076-110- 421/02)	
2006-07	48.20	34.26	82.46
2007-08	59.93	37.30	97.23
2008-09	87.86	40.03	127.89
2009-10	145.63	22.58	168.21
2010-11	99.84	25.51	125.35
Total	441.46	159.68	601.14

Source of data: Details of procurement furnished by DGAFMS.

4.2 Huge shortage of scaled electro-medical equipment

ME Scale authorises electro-medical and non electro-medical equipment to medical and non medical units such as MI room of a Unit/formation. In January 2008, the Ministry approved revision to the existing ME Scale of 1960s. As the types and number of equipment involved in the scale are huge, we examined the position only in respect of 'electro- medical equipment' which are generally of diagnostic nature, and deployed for intense patient care. The availability of electro-medical equipment was examined with reference to the revised ME Scale. The examination revealed the following:

Deficiency of equipment as per the scale



With the introduction of the new ME Scale, AFMSD Pune submitted to DGAFMS its Annual 'Dues out' Report showing the deficiency of equipment, both in terms of type and quantity, to be procured based on initial indents (for new requirement) and maintenance indents (for replacement). The details of the dues out reported by AFMSD Pune were as follows:

Table- 23: Dues out position (value ₹ in crore)

Year	Dues out of Initial Indents			Dues out of Maintenance Indents		
	Types of Eqpt.	Qty.	Value*	Types of Eqpt.	Qty.	Value*
2008	45	396	4.02	37	474	1.94
2009	157	2705	11.40	59	710	3.28
2010	278	21417	176.90	71	691	2.03

**Value of equipment under dues out worked out by Audit based on PVMS rates except in case of 32 equipment (29 Initial & 3 Maintenance) (Qty 2846 = 2755 + 91) for which PVMS rates were not available.*

The Report as of December 2010 showed a total deficiency of 22,108 equipment and outlay requirement of ₹178.93 crore which was at variance with the original assurance of the DGAFMS that the revision to ME Scale would not involve any extra expenditure. A steep increase in dues out quantity from 2008 to 2010 was a pointer to the fact that not all hospitals had been correctly projecting the initial deficiency of equipment in the past years. Further, the increasing trend in 'dues out' both in respect of Initial and Maintenance Indents revealed that the procurement has not kept pace with the demands.

We also noticed that no procurement had been made till date to make up for the projected deficiencies. The DGAFMS clarified that procurements arising from Provision Review, which is based on 'Dues Out' report, were not made due to discontinuance of the review following the implementation of AAP from 2006-07 onwards.

The Ministry stated that the requirements of expendable/non-expendable items were formulated on the basis of periodic returns submitted by the units and review of the availability of equipment vis-à-vis periodic revisions of the ME Scale. The Ministry added that during last one-and-a-half years there has been significant increase in procurement.

The Ministry's response was factually incorrect since procurements against AAP are essentially meant for equipment to meet the modernisation needs of hospitals whereas those through SOC are intended for procurement of non-scale equipment. ME Scales are meant to truly reflect the normal requirement of the hospitals and huge shortages

against the same are indicative of shortfalls in availability of patient care infrastructure.

The above facts indicate that substantial outlays are required to bring the hospitals up to date with regard to the critical electro-medical equipment in order to prevent these shortages from adversely impacting the quality of treatment provided to patients.

Alarming deficiency of critical equipment

The holding of 20 equipment vis-à-vis ME Scale was further examined at 28 hospitals. The details of deficiency and surplus with reference to authorisation are given below:

Table- 24: Deficiency in respect of 20 critical equipment at 28 hospitals

PVMS No.	Nomenclature	No. of Hospitals having					
		Deficiency (percentage)			Surplus	Nil deficiency	Nil authorisation
		100	50-99	< 50			
040017	Apparatus oxygen concentrator provides 95% O2 purity at 5 LPM	3	10	7	2	5	1
040082	ECG/NIBP/SPO2/Temp Monitor	5	19	-	1	1	2
040177A	Pulse Oximeter hand held	5	3	6	2	12	-
250104	Apparatus X-ray, radiographic and fluoroscopic 160 MA at 120 KV generator with 10 KW out put, one BTL 20/40 rotating anode tube head and one motor driven table with spot film device (14" x 14") and one motorized collimator operable on 400-440 volts AC 50 Hz	9	1	-	1	14	3
250106	Apparatus X-ray mobile 60 MA at 100 KVP for 1.5 sec operating on 190 v to 230 volts, 50 Hz single phase AC with accessories	20	6	-	-	-	2
250110	Automatic film processor suitable for processing film size up to 14" x 17"	13	13	2	-	-	-
280053	Lamp operating shadow less, with halogen light 230 v AC/DC 12 volts battery	11	4	2	2	3	6
280047A/ 280624	Portable Light weight computerized Multi channel ECG machine with capability of acquiring all the 12 leads simultaneously, printing on A size thermal paper with auto measurement parameters complete	7	15	5	-	-	1
280003	App Ultrasonic Therapy Unit complete, maximum output 21 watts pulsed & 15 watts continuous Ultrasonic Frequency 1 MHZ with Digital output Display 230 volts 50 cycles AC	14	3	-	1	6	4
280004	App short wave Diathermy Therapeutic (27.12 Mega cycles 11.05 meters) valve type complete HF output 400 watts 230 volts 50 cycles AC.	6	1	1	1	15	4

280604	Bed Side monitor, double channel high/low alarm and digital heart rate display with standard accessories operable on 220 V, 50Hz and rechargeable Ni-cd battery	**8**	**14**	**1**	**-**	**1**	**4**
280608	DC Defibrillator Cum Monitor complete	**8**	**15**	**2**	**1**	**2**	**-**
040162A	Nebuliser Electric	**9**	**14**	**2**	**1**	**2**	**-**
040111	ICU Volume cycled ventilator TV 50 ml-2 ltr IMV, SIMV, assist control PEEP, BIPAP, Pressure support volume cycled with Humidifier and data display screen and battery backup	**8**	**3**	**2**	**1**	**10**	**4**
250206	Box viewing negative with a pair of straight fluorescent tube complete	**20**	**-**	**1**	**4**	**3**	**-**
250117	Medical image intensifier television system with automatic dose rate control facility, dual field, 2 nos monitor to be coupled with high powered x-ray generator with communication facility	**21**	**-**	**-**	**-**	**-**	**7**
250120	Portable ultrasound unit with built in 7" Monitor and with convex sector 3.5 MHz transducer/probe and patient examination table with CVT operable on 220 V AC, 50Hz.	**16**	**6**	**-**	**1**	**5**	**-**
250201	Apron lead vinyl rubber with heavy duty nylon reinforced seams and padded shoulder, minimum 0.5 mm lead equivalent.	**28**	**-**	**-**	**-**	**-**	**-**
251101	Ultrasound Colour Doppler with thermal printer automatic multi format camera	**13**	**1**	**-**	**1**	**2**	**11**
280052	Lamp infra red small, complete 600 watts 230 volts AC/DC	**20**	**3**	**1**	**-**	**4**	**-**

Source of data: Data compiled from information furnished by hospitals in proforma indicating holding of equipment against authorisation.

AH R&R, 6 AF Hospital and INHS Jeevanthi were excluded from the above analysis as equipment held by them were reported as not in vocabulary. This was despite the fact that ME Scale also indicated authorisation in their favour. The results of examination at other hospitals are discussed below:

- Information on holding of equipment as per ME Scale sought from hospitals covered in the Performance Audit revealed authorisations lower than those prescribed by the ME Scale implying that many of the hospitals were not aware of their entitlement of different equipment. This also implied that the indents raised by them would not represent the true picture of the equipment deficiency on ground;
- 100 *per cent* deficiency was noticed in 3 to 28 hospitals. Most hospitals were alarmingly deficient of equipment required for patient care, such as portable multi channel ECG (7)[17], bedside monitor heart rate display (8), DC

[17] The figures in bracket indicate the number of hospitals where deficiency was found. These are out of the 28 hospitals that were audited.

defibrillator (8), Nebuliser electric (9), Portable ultrasound unit (16), Lamp infra red (20). The deficiency in diagnostics equipment was noticed in relation to Mobile X-ray of 60 MA (20), automatic film processor (13), box viewing negative (20), Medical image intensifier television system (21), Ultrasound colour Doppler (13). A basic equipment such as Operating Lamp (shadowless) was not available in 11 hospitals;

- Between 50 *per cent* and 99 *per cent* deficiency existed for 17 equipment in one hospital to 19 hospitals;
- Less than 50 *per cent* deficiency existed for 12 equipment in one hospital to seven hospitals;
- Surplus holdings in respect of certain equipment were also noticed and were a consequence of procurements made in the period preceding the introduction of the revised ME scale; and
- Maximum deficiencies were noticed at Command Hospitals at WC Chandimandir, NC Udhampur, SC Pune and (AF) Bengaluru, MH Ambala, MH CTC Pune, MH Jabalpur, MH Agra and 404 & 4015 Field Hospitals.

Thus, despite the procurement of equipment valuing ₹ 601 crore during 2006-07 to 2010-11, the hospitals were seriously handicapped on account of 100 *per cent* deficiency in certain equipment. AFMSD Pune also informed that of the nine equipment required in varying quantities for accurate repair and checking/calibration of electro medical equipment, only one was functional.

Non-submission of equipment census report

Equipment Census Report on electro-medical equipment is required to be rendered by the dependent units to AFMSD Pune. The report details all the equipment held, their vintage and status of serviceability. The purpose of the report is to arrive at deficiencies of equipment held, conduct their ageing analysis and plan central procurements for replacement of equipment that had completed their shelf life.

The status of receipt of electro-medical equipment census report from various units/hospitals at AFMSD Pune was as under:

Table- 25: Position of receipt of equipment census report

Services	No of units/ hospitals	No of units/hospitals submitted their Electro Medical Equipment Census Report during					
		2008		2009		2010	
		No.	Compliance (Percentage)	No.	Compliance (Percentage)	No.	Compliance (Percentage)
Army	358	146	41	136	38	172	48
Navy	209	27	13	21	10	10	5
Air Force	133	36	27	18	14	85	64
Other Services	74	02	3	01	1	02	3
Total	774	211	27	176	23	269	35

As 65 to 77 *per cent* of units/hospitals had not complied with the requirement of rendering the report, this important management tool was not available to the DGAFMS to plan supply against authorisation or replacement of electro-medical equipment based on ageing analysis.

Non provision of basic entitled scaled items to new units

Five new medical units, raised between September 2009 and July 2011, were to be issued with medical equipment as per scales applicable to them. As of June 2011 the compliance in issue of scaled equipment was as under:

Table- 26: Compliance rate of supply of equipment

Unit	Raising Date	Date by which items as per scale to be provided	Type of items authorised	Type of items issued	Percentage of compliance	Type of items not yet issued
M H Gopalpur	31.7.2010	31.12.2010	735	207	28	528
356 F H	12.9.2009	12.3.2010	666	451	68	215
371 F H	01.6.2010	30.11.2010	693	330	48	363
456 F H	01.4.2011	30.9.2011	429	171	40	258
471 F H	01.7.2011	31.12.2011	429	170	40	259

Recommendation No 4

There is need to comprehensively review the availability of equipment in all hospitals and take immediate action to fill the gaps which are substantial. Suitable fast tracking procedures may be adopted and resources made available to make the military hospitals capable of providing quality medical services to the serving soldiers.

The Ministry replied that during the last one-and-a-half years there has been significant increase in procurement of stores to overcome the deficiencies.

The reply ought to be considered in the light of the fact that large scale deficiencies existed in rendition of 'dues out' and 'equipment census report' by several units and also in the light of the discontinuance of the procurements based on provision review.

4.3 Modernisation of hospitals

Deficiency in modernisation

To cope with rapid changes in various fields of medicine as well as the need to modernise AFMS in a planned and phased manner, the system of formulation of Annual Acquisition Plan (AAP) was introduced from 2006-07. The objectives of AAP were to modernise AFMS to achieve standardisation for manning and maintenance and to ensure balanced infusion of technology in various hospitals.

As would be evident from the following table, very little procurement both under capital and revenue had materialised in time. By the end of 2010-11, only 73 *per cent* of the equipment projected in the AAP for 2006-07 could be procured.

Table 27 below indicates procurement in terms of value as projected in the AAP and actual procurement done in these years. Table 28 indicates procurement in terms of number of equipment.

Table- 27: Compliance to the AAP (₹ in crore)

Year	A A P		2006-07		2007-08		2008-09		2009-10		2010-11		Total procured	
	Cap	Rev	Cap	Rev	Cap	Rev	Cap	Rev	Cap	Rev	Cap	Rev	Cap	Rev
2006-07	247.34	206.37	18.38	13.41	26.98	32.93	29.90	12.59	51.74	15.13	16.88	7.35	143.88	81.41
2007-08	88.06	72.31	-	-	0.27	1.07	7.25	0.55	5.05	41.53	-	6.37	12.57	49.52
2008-09	180.70	39.71	-	-	-	-	2.31	0.50	3.06	0.49	20.57	3.17	25.94	4.16
2009-10	278.91	64.34	-	-	-	-	-	-	0.96	-	35.06	2.20	36.02	2.20
2010-11	367.01	73.48	-	-	-	-	-	-	-	-	0.20	0.10	0.20	0.10
Total	**1162.02**	**456.21**	**18.38**	**13.41**	**27.25**	**34.00**	**39.46**	**13.64**	**60.81**	**57.15**	**72.71**	**19.19**	**218.61**	**137.39**

Source of data: Compiled from information furnished by DGAFMS.

Table- 28: Procurement of equipment against AAP

(Figure in bracket indicates the quantity of equipment)

Year	Type & qty. of eqpt planned during the year	Type & quantity of equipment procured in subsequent years relating to the AAP (either in full or part)					Total type of eqpt & qty procured	Total type of eqpt not procured (in Part/ Full)	Percentage of non procurement (qty)
		06-07	07-08	08-09	09-10	10-11			
2006-07	149 **(12111)**	39 **(2803)**	33 **(3239)**	23 **(708)**	18 **(1952)**	07 **(109)**	120 **(8811)**	58 **(3300)**	27
2007-08	51 **(2878)**	-	01 **(60)**	02 **(23)**	04 **(110)**	01 **(48)**	8 **(241)**	43 **(2637)**	92
2008-09	33 **(2551)**	-	-	01 **(19)**	01 **(103)**	03 **(320)**	5 **(442)**	28 **(2109)**	83
2009-10	51 **(1953)**	-	-	-	01 **(03)**	12 **(401)**	13 **(404)**	38 **(1549)**	79
2010-11	62 **(2588)**	-	-	-	-	03 **(02)**	03 **(02)**	62 **(2586)**	100
Total	346 **(22081)**	39 **(2803)**	34 **(3299)**	26 **(750)**	24 **(2168)**	26 **(880)**	149 **(9900)**	**(12181)**	

Source of data: Compiled from information furnished by DGAFMS.

The equipment planned in AAP for 2006-07 but not procured till March 2011 was critical equipment such as CT Scan, EEG Analyser, Fibre Optic Nysopharyngo Laryngoscope, Cardiotocograph, Mobile OT Light, Neonatal Ventilator, Fibre Optic Bronchoscope, Digital Flouro Radiography system, etc. As of March 2011, the backlog in completing the AAP for the years 2006-07 to 2010-11 was significant being 27, 92, 83, 79 and nearly 100 *per cent,* respectively. At the current rate of progress another four to six years would be required to complete the procurements

planned for these years. In other words, unless budgetary outlays are significantly increased and procurement process is made more efficient, there will always remain an inordinate time lag of four to six years to implement the AAP.

Availability of funds against requirement for AAP

The allotment of funds under capital head and the requirement worked out under AAP for the year 2006-07 to 2010-11 was as follows:

Table- 29: Demand of funds against requirement under capital head

(₹ in crore)

Year	Funds required as per AAP			Allotment under capital head	Difference under capital head	Percentage of demand met under capital head
	Capital Head	Revenue Head	Total			
(1)	(2)	(3)	(4)	(5)	(6) (2-5)	(7) (5/2)
2006-07	247.34*	206.37*	453.71	93	154.34	37.60
2007-08	88.06	72.31	160.37	70	18.06	79.49
2008-09	180.70*	39.72*	220.42	60	120.70	33.20
2009-10	278.91*	64.34*	343.25	70	208.91	25.10
2010-11	367.01*	73.48*	440.49	100	267.01	27.25

**Requirement of funds was not bifurcated into Capital & Revenue separately. However, based on benchmark of more than ₹ 10 lakh for Capital and ₹ 10 lakh and less for Revenue the cost of equipment under AAP has been worked out in audit.*

Although the DGAFMS contended that funds under capital head was not a constraint, the allotment of funds under capital head was not commensurate with the funds required for procurement of equipment in AAP.

Recommendation No 5

The pace of procurements planned under Annual Acquisition Plans needs to be accelerated for modernisation to remain relevant. This would be possible only if budgetary outlays are significantly increased and procurement process is made more efficient. A serious study may be undertaken to identify and remove the bottlenecks, be it in the nature of financial delegation and empowerments or procedural constraints.

The Ministry stated that a proposal to increase the delegation of financial powers was under consideration.

4.4 Delays in procurement

Framing of Qualitative Requirement (QR)

Proposals for equipment which are not in vocabulary are raised on DGMS by hospitals, which after vetting are forwarded to DGAFMS. The DGAFMS examines

the proposal as regards necessity, availability of vendors/manufacturers in market, approximate cost involved and performance of the equipment supplied by the vendor. The Qualitative Requirements (QRs) of the equipment is finalised by Senior Consultants at the DGAFMS. As per DPM the QRs must be sufficiently broad based to enhance wider competition and avoid single vendor situation and procurement delays.

During 2007-11, 128 contracts were concluded for procurement of medical equipment under capital head 42 of these were beyond the powers of DGAFMS as these contracts were for more than ₹ 2 crore each. We examined 11 of these 42 contracts, concurred by the Ministry, as regards internal lead time i.e. formulation of QRs, evaluation by the Technical Evaluation Committee and re-tendering and finalisation of contract.

QR for equipment is intended to elicit competitive response and avoid frequent re-tendering which contribute to delay in procurement. Four of the eleven cases involving procurement over ₹ 25 crore revealed non-formulation of broad based qualitative requirement (QR) and frequent tendering resulting into delays in the planned procurement of over 24 months.

Out of these 11 cases, in at least four cases, re-tendering had to be resorted to with revised QRs. In one case, the time taken from Indent to Contract was as high as 77 months.

Long internal lead time

DPM provides a detailed time frame governing each stage of acquisition under 'Single bid' system (commercial bid) and 'Two bid' system (technical and commercial bid). The time frame suggested therein is up to 22 weeks for single-bid and 26 weeks under two-bid commencing from the activity of vetting and registration of indent to conclusion of contract so as to ensure that the bids are finalised within the validity period. The DGAFMS in formulating SOP in this regard also provided the same time frame and included therein the stages preceding the indent. This involved scrutiny of statement of case and their submission to MOD for need approval by the DG (2 weeks), Approval by MOD/MOD (Fin) (6 weeks), Raising of Indent (1 week) followed by subsequent activities. However, there were delays at each stage of procurement activity as explained in the succeeding paragraphs.

Delay in submission of cases to MOD for AON

Two weeks' time was adopted by the DGAFMS for sending the cases to the Ministry for obtaining 'AON'. The time actually taken by DGAFMS is shown below:

Table- 30: Time taken for submitting proposals to Ministry

Year	AAP approved	Proposal due for AON	Cases proposed	Proposals submitted within time and that delayed by weeks							
				Within time	2-4	5-8	9-12	13-16	17-20	21-24	Above 24
2008-09	03.7.08	17.7.08	25	25	-	-	-	-	-	-	-
2009-10	20.2.09	06.3.09	37	06	12	9	3	3	3	-	1
2010-11	13.3.10	27.3.10	36	Nil	9	11	8	4	3	1	-
Total			**98**	**31**	**21**	**20**	**11**	**7**	**6**	**1**	**1**
Per cent				32	22	20	11	7	6	1	1

Source of data: Data compiled from information furnished by DGAFMS.

It can be seen that there was a delay in submission of the proposals to the Ministry in 68 *per cent* of the cases. In 26 *per cent* cases the delay was beyond 8 weeks.

Time taken for accord of AON by the Ministry

With reference to the six-week time frame for according the AON indicated in the SOP the position was as under:

Table- 31: Time taken by Ministry for according AON

AAP Year	Total no. of approvals accorded	Within six weeks (per cent)	Time taken in weeks for according AON by MOD beyond the limit of six weeks. (percent)			
			7 to 12	13 to 25	26 to 50	Above 50
2008-09	25	NIL	4 ***(16)***	18 ***(72)***	3 ***(12)***	0
2009-10	37	1 ***(2)***	14 ***(38)***	15 ***(41)***	5 ***(14)***	2 ***(5)***
2010-11	36	-	14 ***(39)***	21 ***(58)***	1 ***(3)***	0
Total	**98**	**1 (1)**	**32 (33)**	**54 (55)**	**9 (9)**	**2 (2)**

Source of data: Data compiled from information furnished by DGAFMS.

Time taken for conversion of indent into contract

Time taken for conversion of 63 indents into contracts as of March 2011 against the prescribed time frame of 26 weeks as shown below:

Table-32: Period of conversion from Indent to Contract

AAP Year	Total No. of indents	No. of indents converted into contract within prescribed time of 26 weeks and that delayed by weeks						
		Within time	1-6	7-14	15-26	27-42	Above 42	Still in process*
2008-09	27	-	-	2	3	4	5	13
2009-10	36	-	-	1	3	2	8	22
Total	**63**	**-**	**-**	**3**	**6**	**6**	**13**	**35**

Source of data: Data compiled from information furnished by DGAFMS.

Of the 63 indents raised, 35 were still under process as of March 2011 constituting nearly 56 *per cent*.

The DGAFMS attributed the delay in procurement to strict adherence to the laid down procedures.

The abnormal delay at each stage of procurement has adversely affected the equipping of the hospitals with modern diagnostic equipment for providing improved patient care. The delays have occurred despite existence of an approved AAP.

4.5 Post contract management

The post contract activities involve acceptance in inspection, installation, utilisation, timely repairs on breakdown and maintenance under the AMCs during the life cycle of equipment and its final disposal.

We analysed the status of medical equipment as regards installation, availability and downtime in the hospitals covered under Performance Audit. Considering the huge number of equipment the sample was restricted to items of equipment individually valuing ₹ 5 lakh and above.

We noticed that there were cases of delays in installation, non-utilisation of equipment for want of reagents/consumables, and supply of equipment different from the ones offered as explained below:

Delays in installation

i) In respect of Microwaves (Model Sintion) valuing ₹7.62 crore (47 Nos) procured in September 2002 there were delays in installation ranging from 18 to 39 months due to non-availability of site and/ or firms' engineers not reporting for installation.

ii) Multi Slice Spiral CT Scanner contracted in November 2009 valuing ₹ 4.14 crore was to be installed by December 2010. As the related civil work was completed only in June 2011 the equipment was yet to be installed as of July 2011.

iii) Against the order of June 2006, placed on a private firm by DGAFMS, for supply of 67 Automatic Film Processors valuing ₹ 1.11 crore to ECHS polyclinics, there was delay in installations at 35 sites ranging from three to 26 months. At Kancheepuram, the equipment delivered could not be installed for want of space in the hired building and at Kakinada some parts of the equipment were eaten by rodents due to improper storage conditions.

Non-utilisation of machines for want of reagents/consumables

i) Fully Automatic Blood Gas Analyser installed at MH Jodhpur in May 2005 was not utilised since last five years due to non-availability of reagents.

ii) Gama Guidance System for Tissue Localisation valuing ₹2.83 crore was received at AH R&R Delhi Cantt in September 2002 along with required Isotopes for treating 500 patients. Non-availability of Isotopes since 2006 resulted in idling of the equipment.

iii) MAS Analyser valuing ₹19.85 lakh received in March 2006 at CH WC Chandimandir was not put to use between February 2006 and November 2008 and between December 2009 and January 2011 for want of kits required for testing.

Acceptance of supply of defective equipment

In the procurement of 123 Apparatus Anesthesia Basic (PVMS No.040006) valuing ₹ 7.07 crore from L&T Delhi in March 2007, we observed that several hospitals reported defects in the equipment supplied. It was further noticed that the equipment was procured despite its limitations pointed out by the technical boards.

4.6 AMC of medical equipment

In 1999, a policy was framed to govern engineering support to medical equipment. The policy divided the repair responsibilities of sophisticated equipment, electro medical equipment and non electro medical equipment between the DGAFMS and DGEME.

As per the division, the repairs to 44 sophisticated equipment would be carried out through AMC under DGAFMS. The AMC clause for complete life cycle of equipment would be incorporated in the contracts at the time of procurement of such equipment. The equipment would be repaired and maintained by service engineers of the firm. The EME would not undertake any repairs to these equipment during their entire life cycle.

Thirty two non electro-medical equipment (revised to 37 in May 2010) (inclusive of various models thereunder) listed in the policy would be solely repaired by the EME Workshops. The repair responsibility of 34 electro medical equipment (revised to 50 in May 2010) was divided between EME workshops and Command Repair Cells (CRCs) where the latter would also undertake repairs that are beyond the capability of EME Workshops. The CRCs would be responsible for repairs of electro medical equipment of RR, BHDC, CH EC Kolkata, CH (AF) Bangalore, INHS Ashwini and MH (CTC) Pune. There are 43 EME workshops and seven CRCs providing engineering support.

In September 1999, the Ministry also envisaged repair/maintenance of equipment through civil firms as per the financial powers delegated whenever the repair was

beyond the capability of EME workshops or repairs were urgently required or involved import of equipment or sophisticated equipment.

Coverage of equipment under AMC

Considering the huge number of equipment held by hospitals, we restricted our sample to equipment, individually valuing ₹ 5 lakh and above, for analysing the status of AMC.

The data furnished by MH Allahabad, Gaya and 170 MH was not considered as these hospitals did not report any equipment on their inventory as being due for AMC during the period 2007-08 to 2009-10. INHS Ashwini while reporting equipment covered under AMC did not furnish data relating to equipment due for AMC. As such information provided being incomplete was not considered.

The coverage of equipment under AMC across the hospitals sampled in audit was noticed to be quite inadequate between 28 and 36 *per cent* as shown in Table 33:

Table – 33: Coverage of equipment valuing more than ₹ 5 lakh under AMC

Particulars	2007-08		2008-09		2009-10		2010-11	
	No.	Percentage	No.	Percentage	No.	Percentage	No.	Percentage
Equipment due for AMC	408	-	453	-	420	-	364	-
Equipment covered under AMC	145	36	175	39	133	32	101	28
Equipment not covered under AMC	263	64	278	61	287	68	263	72

Details of the coverage of equipment under AMC at the sampled hospitals were as follows (wherever complete data was furnished).

Table – 34: Hospital-wise coverage of equipment under AMC

Hospitals	2007-08 Equipment			2008-09 Equipment			2009-10 Equipment		
	Due for AMC	Covered	Percentage not covered	Due for AMC	Covered	Percentage not covered	Due for AMC	Covered	Percentage not covered
CH SC	16	4	75	22	5	77	22	7	68
CH NC	24	9	63	27	5	81	29	8	72
CHAF	83	58	30	88	80	9	50	21	58
AH R&R	71	13	82	74	15	80	78	21	73
BH Delhi	72	29	60	84	32	62	85	33	61
BH Srinagar	24	3	88	24	4	83	22	1	95
MH Jodhpur	27	4	85	29	11	62	29	3	90
MH Kirkee	5	0	100	6	0	100	6	0	100
MH Jabalpur	31	1	97	32	1	97	32	11	66

#Source of data: Data compiled from information furnished by hospitals in proforma indicating equipment due for AMC and that covered under AMC.

Considering that about 133 hospitals are functioning under AFMS it cannot be ruled out that the number of equipment not covered under AMC would be much larger than the population of equipment revealed in the sample study.

Reasons for low coverage of equipment under AMC are explained in the succeeding paragraphs.

Non maintenance of log books by hospitals

DGAFMS Medical Memorandum issued in 2002, requires wards/departments to maintain log books for all equipment costing more than ₹ 10,000/- and for all life saving equipment. The log books record nomenclature and source of supply, date of acquisition, the cost, warranty clause, name of supplier, date of defect/cessation of function, nature of defect, date of call for repair, date of completion of repair and are signed by the MO/IC of ward/Department.

It was seen in the hospitals covered under Performance Audit that log books were either not maintained or maintained deficiently as regards details prescribed in the DGAFMS Medical Memorandum. The unsatisfactory status on maintenance of log books would explain as to why hospitals were unable to arrive at the status of equipment that are within and outside the period of warranty.

Delay in according sanction for AMC

The Ministry in July 2006 delegated financial powers to DGAFMS and other functionaries in the AFMS for sanction of expenditure for repairs/servicing of equipment/vehicles through trade as under:

Table- 35: Powers delegated for AMC/repairs

Hospitals Commanded by	Without IFAs concurrence (₹)	With IFAs concurrence (₹)
Col / below	5,000	15,000
Brig and above	25,000	1,00,000
Comdt AFMSDs	25,000	1,00,000
AFMSD Pune, AMSDs etc	25,000	50,000
Addl. DGAFMS	-	5,00,000
DGAFMS	1,00,000	10,00,000

Sanctions involving expenditure beyond the above delegated powers continued to be issued by the Ministry. During 2007 to 2010 (calendar years), 468 sanctions were accorded by the Ministry and the DGAFMS for AMC of equipment. Our analysis of the AMC sanctions accorded by the Ministry revealed the following:

Table- 36: AMC sanctions accorded by Ministry

Year	Sanctions accorded		Time taken for sanction (Percentage)				Range of AMC Cost (₹ in lakh)
	Nos	Value (₹ in lakh)	Within 30 days	31-120 days	121 -360 days	> 360 days	
2007	13	241.43	10 **(77)**	2 **(15)**	1**(8)**	-	9.41 to 36.24
2008	6	119.94	01 **(17)**	1 **(17)**	4 **(66)**	-	10.82 to 44.59
2009	17	363.13	12 **(71)**	-	2 **(12)**	3 **(17)**	10.47 to 49.05
2010	19	499.27	13 **(68)**	5 **(26)**	-	1 **(6)**	10.46 to 50.57
Total	**55**	**1223.77**	**36 (65)**	**8 (15)**	**7 (13)**	**4 (7)**	

Source of data: Data compiled from information furnished by DGAFMS.

On an average 65 *per cent* of cases were cleared by the Ministry within a month, 15 *per cent* were cleared in four months whereas in 20 *per cent* cases the Ministry took almost one year. The approval process needs to be expedited to avoid delays as very few cases of AMC require sanction by the Ministry.

Table- 37: AMC sanctions accorded by DGAFMS

Year	Sanctions accorded (i.e. equipment)	Time taken in days (percentage)				
		Up to 15 days	16 – 30 days	31 – 60 days	61 – 120 days	Beyond 120 days
2007	89	80 **(90)**	7 **(8)**	2 **(2)**	-	-
2008	95	48 **(51)**	24 **(26)**	17 **(18)**	4 **(4)**	1 **(1)**
2009	124	69 **(56)**	43 **(35)**	9 **(7)**	3 **(2)**	-
2010	105	37 **(35)**	31 **(30)**	22 **(21)**	13 **(12)**	2 **(2)**
Total	413	234 **(57)**	105 **(25)**	50 **(12)**	20 **(5)**	3 **(1)**

Source of data: Data compiled from information furnished by DGAFMS.

Delay in conclusion of contracts

In regard to the timeliness in conclusion of AMCs, we observed that only in 35 *per cent* of the cases contracts were concluded immediately after sanction. In 38 *per cent* of the cases the time taken was beyond one month from the date of sanction as shown below:

Table- 38: Time taken for concluding AMC

Sl No.	No. of Cases	Time taken for conclusion of AMC after sanction
1	42	Immediately after sanction
2	33	Within one month
3	33	One to six months
4	5	Seven to 12 months
5	7	Beyond 12 months
Total	120	

Source of data: Data compiled from information furnished by hospitals in proforma indicating equipment due for AMC and that covered under AMC.

The cumulative delays involved in AMC finalisation carried a risk of denial of equipment for patient care in the event of break-down of the equipment.

4.7 Downtime of medical equipment

Downtime of medical equipment arises from the date of being non functional/defective till these are repaired and made functional. We could collect information regarding downtime of machines from 10 hospitals out of 26 hospitals covered in this audit. The downtime due to delay in repair was noticed in respect of 51 equipment (Equipment costing more than ₹ 5 lakh valuing ₹ 16.35 crore reported by 10 hospitals). This ranged from one month to 12 months. Considering that log books to record the downtime of equipment were not maintained properly and the data was limited to 10 hospitals only, actual downtime of equipment in all the hospitals could be much higher.

We examined the reason for delay in repair in two units responsible for repair of equipment, viz. CRC Lucknow and AFMSD Pune.

Position at CRC Lucknow

During 2008 to 2010, the CRC received 592 work orders for repairs to medical equipment. In 33 out of 40 cases examined, it was seen that the time taken for repair ranged from 37 days to almost three years. The equipment with more downtime included Oxygen Concentrator, ECG Machine and Defibrillators, etc. The delay was attributed by the CRC to non-availability of spare parts in market in time particularly in respect of old equipment phased out of market. As delayed repairs would adversely impact patient care, this matter needs effective redressal.

Position at AFMSD Pune

AFMSD Pune alone has a workshop to carry out repairs to X-ray and electro medical equipment of the three services. The status of medical equipment received at AFMSD for carrying out repairs was as under:

Table- 39: Repair position at AFMSD Pune

Year	Equipment received	Repaired by the Depot	Declared as BER	Repaired through trade	Awaiting repair
2006-07	1278	936	219	41	82
2007-08	1102	819	195	14	74
2008-09	822	593	196	08	25
2009-10	739	559	158	19	03
2010-11	703	408	179	51	65
Total	4644				249

In respect of 53 of the 559 equipment repaired in 2009-10 it was seen that the time taken for repairs ranged from 54 days to 379 days. AFMSD Pune cited acute shortage of technical manpower as one of the reasons for such delay. The position of technical manpower in the Depot was as follows:

Table- 40: Position of Technical Manpower at AFMSD Pune

Position of staff against authorisation	As on 31.3.2008			31.3.2009			31.3.2010			31.3.2011		
	A	P	Deficiency in percentage	A	P	Deficiency in percentage	A	P	Deficiency in percentage	A	P	Deficiency in percentage
ATEO	3	0	***100***	3	0	***100***	3	0	***100***	3	0	***100***
SO (Civ)	1	1	***0***	1	1	***0***	1	1	***0***	1	0	***100***
Chargeman	1	1	***0***	1	1	***0***	1	0	***100***	1	0	***100***
SKS	7	7	***0***	7	7	***0***	7	7	***0***	7	4	***43***
LHF	3	2	***33***	3	2	***33***	3	2	***33***	3	2	***33***
FED	4	2	***50***	4	2	***50***	4	2	***50***	4	2	***50***
FM-I	7	5	***29***	7	5	***29***	7	5	***29***	7	5	***29***
HS X Ray Electrician	5	2	***60***	5	2	***60***	5	4	***20***	5	3	***40***
Fitter	2	1	***50***	2	1	***50***	2	1	***50***	2	1	***50***
Machinist	2	1	***50***	2	1	***50***	2	1	***50***	2	1	***50***
Labourer	16	10	***38***	16	11	***31***	16	11	***31***	16	11	***31***
TCM (EME) OR	10	8	***20***	10	10	***0***	10	4	***60***	10	7	***30***

A = Authorisation, P= Posted

The Depot also indicated that the men in position were inadequately trained to handle the maintenance of new equipment and were able to provide repair cover only by hit and trial. AFMSD Pune also indicated absence of policy for stocking of spares.

The Ministry clarified that all major procurements subsequently done had five-year warranty + five years' comprehensive annual maintenance contract (CAMC) clause and the vendors had contractual liability to undertake maintenance for ensuring serviceability of the equipment. Penal clauses are invoked in case of any default.

While we appreciate the steps taken for maintenance of costly capital equipment, it is equally necessary that the existing equipment is put under AMC to ensure availability of such equipment for patient services.

Recommendation No 6

We recommend that effective steps be taken to streamline the maintenance and repairs of costly equipment. The deficiency in technical manpower at CRCs and AFMSD Pune may be made good together with up-gradation in their skills to carry out emergency/minor repairs and reduce the downtime of costly equipment. Similarly, availability of kits/consumables in hospitals may be ensured for optimum utilisation of equipment.

Chapter V: Procurement of drugs and quality inspection

Audit objective:
To assess whether:

- **System of selection of vendors was geared to provide economy and quality in procurement;**
- **System of indenting, provisioning and supply for central procurement of medicines was managed efficiently and effectively;**
- **The supply chain promptly responded to user's demands to their satisfaction;**
- **System of local procurements of medicines by hospitals was well managed so as to ensure both economy and quality in supply; and**
- **Quality assurance procedures and infrastructure were in place.**

5.1 Types of stores

Stores which are consumable in nature or which cannot be used repeatedly are termed 'expendable' e.g. drugs, dressings, chemicals, blades, needles, etc. Items which do not have life beyond one year due to fair wear and tear are also termed as 'expendable'. Expendables with shelf life up to two years such as all medical stores, medical gases, transfusion sets, X-ray films, etc are classified as 'short life' having and those with shelf life of more than two years are categorized 'long-life'. Stores which can be used again and again with fair wear and tear are termed as 'non-expendable' such as forceps, operating tables, apparatuses, equipment, etc.

The stores in service use are listed in 'Priced Vocabulary of Medical Stores' (PVMS) consisting of 29 sections. Each drug is codified in six digits where the first two digits denote PVMS section; the next two indicate the sub-section and the last two digits the particular drug. The PVMS indicates the accounting unit, the specification, the life and the rate per unit. Drugs and other items not listed in the PVMS are categorized as 'Not in Vocabulary' (NIV). Certain drugs are categorised as 'Proprietary Article Certificate' (PAC) items which are manufactured and supplied only by a specific firm.

DGAFMS reviews PVMS periodically through a 'Drug Review Committee' (DRC). The recommendations of the DRC, on its acceptance by the DGAFMS, are

incorporated under an 'Amendment list' (AL) issued by the DGAFMS containing drugs newly introduced, deleted (i.e. obsolete) and 'obsolescent'.

The procurement of medical stores is governed by provisions of Defence Procurement Manual (as amended from time to time) and instructions issued by the DGAFMS.

5.2 Sources of supply and procurement agencies

The main sources of supply of medical stores are Trade, Import and Pharma Central Public Sector Enterprises (CPSE). Major agencies involved in the procurement of medical stores are:-

DGAFMS: The DGAFMS enters into rate contracts with manufactures/suppliers for supply to various consignees, where the annual consumption of store is over ₹ 20 lakh. All procurements under these rate contracts are booked under CP allotments.

AFMSDs: The AFMSDs (Mumbai, Delhi and Lucknow) are the central procurement agencies mandated to supply medical stores to the non Direct Demanding Officer (DDO) hospitals, AMSDs and FMSDs under their jurisdictions based on indents raised on them. AFMSDs book their expenditure both under CP and LP whereas the DDO hospitals book their expenditure under local purchase allotments.

Hospitals: Seven hospitals viz Command hospitals SC, WC, EC, CC, AH (R&R), CH (AF) and INHS Ashwini, declared as DDOs are independent of the AFMSDs to meet their requirement of drugs, kits and consumables.

The remaining hospitals, declared as non-DDOs, are dependent on AFMSDs for their requirement. These hospitals are also empowered to make emergent local purchases of drugs up to the limits laid down in delegation of financial powers issued by the Ministry in July 2006 against the non-availability intimated by the AFMSDs. All such procurements are booked under LP allotments.

AMSDs/FMSDs: FMSDs and AMSDs are operational units at the levels of Corps and theatre of operations, respectively. They are tasked to store and supply medical stores to units located in forward areas where it is not possible for these units to collect the stores directly from AFMSDs. In addition to supply from AFMSDs they are also empowered like non-DDO hospitals to make emergent local purchases. All procurements by FMSDs and AMSDs are booked under LP allotments.

5.3 Quality inspection of drugs

Pursuant to DPM – 2005, the Ministry issued additional guidelines in July 2006 to DGAFMS governing procurement and inspection of Medical Stores/equipment. The

procedure for inspection stipulated therein stated that "DGQA will carry out inspection of all drugs of 'central purchase' which exceed ₹ 1.5 lakh. The inspection will be carried out strictly in accordance with the terms of AT[18]/Supply Orders. Alternatively, the firm may also submit test certificate from laboratories accredited by "National Accreditation Board for Testing and Calibration Laboratories (NABL)". This was elaborated further by the DGAFMS in August 2006 for purchases by Direct Demanding Officers (DDOs) stipulating that for purchases within limit of ₹ 1.5 lakh the inspection will be carried out by a Board of Officers in the hospital (including one specialist). Inspection will, however, be as per procedure prescribed for central purchase i.e. by DGQA, for purchases exceeding ₹ 1.5 lakh by DDOs.

For inspection of drugs procured locally by non-DDOs the quality inspection was not entrusted to any inspecting authority. This has serious implications when viewed in the context of increasing trend of local procurements done by hospitals.

5.4 Vendor registration

For ensuring qualities in procurement of goods, the DPM-2005 had laid down broad guidelines for selection and registration of firms. It envisages a thorough scrutiny of credentials of a firm, financial status, manufacturing and quality control facilities, business ethics, and market standing before registering it as an approved source of supply.

In July 2006, the Ministry laid down that drugs will be purchased from the firms which met the following criteria:

DGQA registration or holding GMP (Good manufacturing practice) certificate issued for the plant by State or Central authorities, duly supported by a valid manufacturing licence along with annual turnover of pharmaceutical products alone of more than ₹ 20 crore for the last three consecutive years or original inventor of molecule and manufacturing and marketing certificate.

As per the instructions of DGAFMS issued in August 2006, the registration of firms is to be done by a Board of Officers, duly approved by the Commandant of the hospital. Past performance of the firm is also to be taken into account when registering a firm.

Scrutiny of the system of registration during the last three years revealed that the hospitals registered even those firms which had made false declaration, did not even possess valid drug licence at the time of registration nor had prescribed turnover, etc. as narrated in the paragraphs below.

[18] Accepted Tender

Registration of firms not holding Valid Drug Licence/Good Manufacturing Practice/Dealer Licence

The Ministry's instructions cited above stipulated that procurement is to be made from the manufacturers/dealers only and not from any other source. While registering manufacturers it is to be ensured that they possessed certificate of Good Manufacturing Practice (GMP). Holding of GMP certificate ensures reliance on quality.

We observed that vendors other than manufacturers/dealers were also registered by the Hospitals. Out of 19 Hospitals/Depots where Board Proceedings were made available, we noticed that only six units, namely, CH SC, MH Kirkee, Amritsar, AFMSD Lucknow, Pune and Mumbai had considered GMP as one of the criteria for registration of manufacturers. The remaining 14 hospitals/depot[19] did not consider GMP as the criterion, which was in violation of the instructions issued by the DGAFMS and the Ministry.

Dealership certificate

Dealership certificate is given by a manufacturer to its licenced dealer for marketing its products in a given area.

Three hospitals viz. INHS Ashwini, INHS Jeevanthi and MH Deolali did not insist on submission of dealership certificate for registering the firms. AFMSD Lucknow registered 122 drug vendors and 30 non-drug vendors though only approved dealers of the manufacturers were to be registered.

Drug licence

Any dealer who intends to sell medicines should possess a valid drug licence issued by the Food and Drugs Authority. The hospitals/depots who register the firms are to ensure that the firms hold drug licence which is valid for the entire period of registration. At nine hospitals/depots we noticed that in the registration of vendors during 2007-08 to 2010-11, 95 firms did not possess valid drug licences at the time of registration. Four of these hospitals viz MH Agra, MH CTC, CH NC and CH SC purchased drugs valuing ₹7.76 crore from 27 firms which did not possess valid drug licences.

A few cases of serious irregularities in registration of firms not having valid drug licence are indicated below:

At CH SC six firms not having valid drug licences were registered and orders valuing ₹2.13 crore were also placed on these firms during 2010-11.

[19] CH WC, CHAF, AHR&R, MHCTC, INHS Ashwini, Jeewanthi, BH DC, 166 MH, MH Jabalpur, 6 AF, MH Deolali, 170 MH, MH Ambala and AFMSD Delhi

92 BH registered three vendors who had not produced valid drug licences, yet during 2007-08 to 2009-10 orders were placed on them. Further scrutiny revealed that one firm had been issued licence by the licencing authority only in April 2011 effective for the period January 2008 to December 2012 and had received supply order valuing ₹ 6.61 lakh in June 2009.

The drug licence of M/s. Y Enterprise had expired in December 2006; yet seven orders valuing ₹ 12.93 lakh had been placed on it by 92 BH in 2008-09 and 2009-10. In respect of M/s Z and Sons drug licence was issued by the licencing authority on 10.4.2007 valid from 1.4.2007 to December 2007. Yet, eight orders valuing ₹ 15.30 lakh had been placed by 92 BH during 2007-08 to 2009-10. The above cases show that the process of verification of licences was not working effectively.

At MH CTC we noticed that seven firms were registered wherein the drug licence certificate furnished by the firms at the time of registration was not in the name of the firm being registered. The hospital stated that the Board of Officers only verifies whether the drug licence issued by the competent authority is in the name of the same vendor or firm. It is not clear how the Board of Officers recommended the name of the vendor who did not possess drug licence in its name. Such registration carries risk of spurious vendors gaining entry in supply of drugs & medicines.

MH CTC had registered a Pune based firm and procured allopathic medicines from the vendor for ₹ 11.6 lakh. We noticed that the drug licence granted to the firm in October 1994 was renewed by the Food and Drug Administration authorities in Pune in February 2008 for the period January 2007 to December 2011 to stock or exhibit (or offer)/sale or distribute homoeopathic medicines in their premises. Therefore the purchase by MH CTC of allopathic medicines from the vendor, who was not authorised to sell such medicines, was incorrect.

We also noticed that MH CTC had registered two firms operating from one and the same location and with the same telephone and fax. During 2010-11, the hospital had placed 13 orders valuing ₹ 12.31 lakh on these vendors.

Recommendation No 7

We recommend that the DGAFMS should strengthen their internal processes for procurement of quality medicines by ensuring strict adherence to the laid down procedures. Periodic checks of the registration process may be conducted to identify, investigate and effectively discourage deviations.

The Ministry agreed with the recommendation that there cannot be any deviations from the laid down procedures but did not offer any comments on the specific deviations pointed out.

5.5 Central procurements through rate contracts

DGAFMS and AFMSDs as the central procurement agencies in AFMS have the mandate to procure the entire requirement for an item on the basis of indents arising from a planned provisioning process. A Rate Contract (RC) is a tool for procuring items in bulk at a fixed rate over a period of time while minimising the order processing and inventory carrying costs. RC system supports supply chain management, economies of scale and efficient transactions for both the purchaser and the supplier. Further, all central procurements, valuing in excess of ₹ 1.5 lakh, are required to be certified for quality by DGQA on the basis of test inspection or by an NABL accredited laboratory.

Drugs in the PVMS/NIV, having annual turnover in excess of ₹ 20 lakh, are also procured through RC which is normally concluded for a period of two to three years. Any extensions of the existing RC or conclusion of an RC for a period exceeding three years is required to be approved by the Ministry of Defence.

As per delegation of financial powers framed in July 2006, the DGAFMS has been delegated financial power up to ₹ 5 crore for entering into RC in consultation with the IFA.

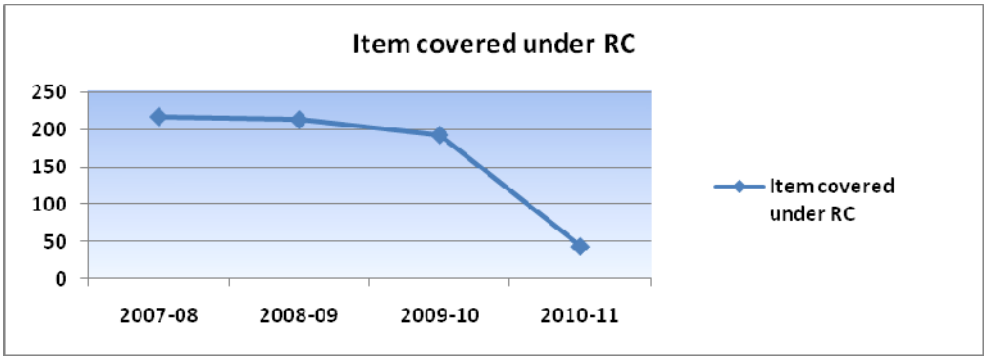
Inadequate coverage of items under RCs

There are around 8000 expendable items listed under PVMS. Of these, 102 drugs are under PPP[20] and 261 under DGS&D RCs numbering 473 in all. On the basis of information available with DGAFMS, 722 items have an annual consumption of ₹20 lakh and above. RCs were thus required to be concluded in respect of at least 722 items of the PVMS. The coverage was however found to be dismal. As of March 2011, RCs were in force only in respect of 44 items (6 *per cent*). The number of RCs in operation for the last four years was as under:

Table- 41: Details of RCs in force

Year	From CPSEs		From private sources		Total	
	Items	RCs	Items	RCs	Items	RCs
2007-08	3	3	213	210	216	213
2008-09	10	16	202	202	212	218
2009-10	26	58	166	166	192	224
2010-11	20	52	24	24	44	76

[20] Purchase Preference Policy i.e. items procured from the CPSEs

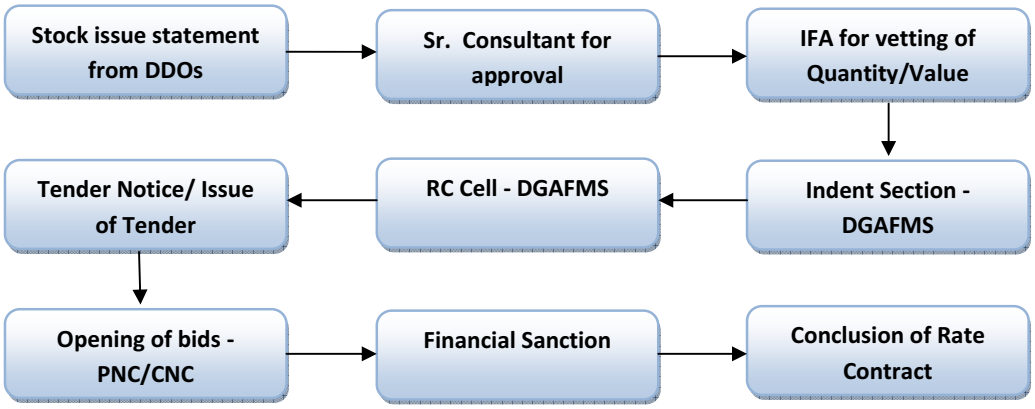


The number of RCs had decreased sharply over the last four years. In respect of procurements from private sources, the RCs in force in 2010-11 (24) had declined by 89 *per cent* compared to 2007-08 (210). Consequently, as pointed out in Chapter II on Financial Management, the share of Central procurements by DGAFMS and AFMSDs which constituted 62 *per cent* of total procurements in 2006-07, had gradually declined to 44 *per cent* in 2010-11.

The decline in centralised purchases has implications on the price of drugs and, more importantly, for ensuring the quality of drugs supplied. As already pointed out, local procurements are not subjected to any quality inspection and hence the possibility of substandard drugs getting into the supply chain is high.

Low conversion from indents to rate contracts

For conclusion of RCs, as a first step, the quantity required is arrived at based on the annual stock/issue statements of the ten DDOs. This is vetted and approved by the senior consultant in DGAFMS. The vetted quantity is then forwarded to the Integrated Financial Adviser (IFA) before according Acceptance of Necessity (AON) to the proposal. Once AON is approved, an indent is prepared by the Indent Section which forwards it to the RC Cell in DGAFMS for conclusion of RC.



The indents processed and converted into RCs during 2008-11 were as under:

Table-42: Details of indents converted into RCs

Year	No. of Indents forwarded to RC Cell	No. of RC concluded	Cases under process	Indents closed
2008	126	108	02	16
2009	62	39	12	11
2010	158	17	118	23
2011	102	Nil	99	3
Total	**448**	**164**	**231**	**53**

It can be seen from the above table that the RCs concluded sharply decreased from 108 in 2008 to 17 in 2010. No RC was concluded as of 01 January 2012 against 99 indents of 2011 and 118 indents of 2010. These were under various stages of examination by the DGAFMS as shown below:

Table- 43: Stages of indents under process for RC

Reasons	2010	2011
Re tender	2	
Advertised	96	19
Advertisement under process	Nil	23
Under approval from DGAFMS	1	29
RC under process	10	14
Other reasons	9	14

Ninety six indents of 2010 were not processed beyond the advertisement stage which should not have taken more than 10 weeks as stipulated in DPM.

Extra expenditure due to non-conclusion of RC

As discussed above, an indent is raised where the estimated value of the annual demand is ₹ 20 lakh and above. A Tender Enquiry (TE) is then issued to obtain the lowest rate for determining the feasibility of RC. However, when the anticipated annual procurement based on lowest rate obtained during the tendering process is lower than the said limit such cases are closed.

DGAFMS closed 30 indents during 2008-09 to 2010-11, whose estimated annual consumption was found to be less than the limit of ₹ 20 lakh with reference to the lowest rate obtained against TEs issued for concluding RC. We independently compared the local procurement rates in seven DDOs and found that the actual rates of local procurement were much higher than the L1 rate of the TE causing loss to the exchequer. This will be evident from the following table.

Table- 44: Extra expenditure due to non conclusion of RC

PVMS No.	DDO	Qty of LP	Period of LP	Range of LP Rate	L1 Rate of TE	Extra expenditure (in ₹)
010110	CH(WC), CHAF	3400	09/09 to 3/11	44.44 - 149.50	44.42	98827
010847	CH(SC), CH(WC), CHAF, AH (R&R)	3320	7/09 to 3/11	400 - 1480	377.52	479407
011609	CH (SC), CHAF, AFMSD Delhi & Lknw	64998	7/09 to 3/11	20.79-68.58	18.80	729783
013294	AFMSD Delhi, Lknw, CH (WC), CH (SC) and CHAF	298604	9/09 to 2/11	7.15 – 17.33	6.75	658262
011151	CH(SC), CH (WC), CHAF & AFMSD Lknw	1777000	7/09 to 3/11	0.24 -1.16	0.10	689520
012206	CH(SC), CHAF & AH (R&R)	23625	2/10 to 2/11	10.90 -19.47	9.98	82995
013233	AFMSD Delhi	123000	2/10 to 3/11	19.85-54	14.43	901712
013235	AFMSD Mumbai, Lknw & CHAF	165750	4/10 to 11/10	10 – 18.69	9.33	310350
013239	AFMSD Delhi, Lknw, Mumbai & CHAF	39360	2/10 to 3/11	43.47 – 59.90	30.83	667744
013242	AFMSD Delhi, Lknw, Mumbai, CH (WC), CH (SC), CHAF & AH R&R	292395	8/09 to 2/11	3.75 – 32.75	2.95	798316
013280	CH(SC), CH (WC), CHAF, AFMSD Lknw, & AH R&R	506800	4/10 to 3/11	0.61 – 5.15	0.54	177997
011253	AFMSD Delhi & CH (WC)	35000	2/10 to 12/10	16 -28.35	13.12	400755
011778	AFMSD Delhi, CH (SC), CH (WC), CHAF & AH R&R	24700	2/10 to 3/11	28.08 - 40.08	27.90	204316
012708	CHAF, AH R&R, CH (WC) & AFMSD Lknw	5118330	7/08 to 2/11	0.18 – 0.38	0.17	193049
170156	AFMSD, Mumbai, Lknw, Delhi and CHAF	5938	1/09 to 3/11	567 – 1209	545.13	1042201
Total extra expenditure						**7435234**

Source: Data compiled from supply order details furnished by DDOs

Equally alarming was the fact that the DDOs procured drugs at widely varying rates which were much higher than the L1 rate obtained in the TEs closed by DGAFMS. During the above period, the extra expenditure in local procurement of 15 drugs alone was ₹74.35 lakh. We are of the view that such practices need to be investigated by DGAFMS to curb price manipulation in collusion with the suppliers.

Abnormal delays in conclusion of rate contracts

Test check of 34 RCs concluded during 2008-11 indicated considerable time taken to finalise these contracts. In 28 cases (82 *per cent*) the delay ranged from six weeks to 107 weeks. Nine illustrative cases in seven DDOs examined in audit revealed that due

to local procurement in the intervening period, extra expenditure was incurred as compared to the RC rate, as shown below:

Table- 45: Extra expenditure due to delay in concluding rate contracts

PVMS No.	DDO	Quantity of LP	Period	Range of LP rate (₹)	RC rate (₹)	Extra expenditure (₹)
011343	AFMSD Delhi	1830009	9/07 to 2/09	12.97 - 16.44	8.51	1138250
	AFMSD Mumbai	54000	3/08 to 5/09	12.36 - 14.03		247980
	AFMSD Lucknow	51500	5/08 to 2/09	9.36 - 13.20		91775
	CHAF	2900	6/09	12.4 – 12.5		11331
011971	AFMSD Delhi	75950	2/08 to 4/09	21.06 - 29.99	16.78	637633
	AFMSD Mumbai	15000	3/08	27.59		162150
	AFMSD Lucknow	2100	6/08	25.50		18312
	CH (WC)	1430	4/08	69.90		75962
	AH RR	20750	12/08 to 5/09	21.40 – 64		127815
	CH SC	13300	7/08 to 1/09	19.50 - 25.50		61976
011979	AFMSD Delhi	5500	7/09	11.06	7.98	16940
	AH (RR)	58010	5/09 to 1/10	11 - 16.60		255650
	AFMSD Lucknow	1440	5/09	16.60		12413
	CH(SC)	3000	11/09	13.52		16620
	CH(WC)	35080(incl ECHS)	10/09 to 3/10	15.40 - 15.50		263154
	CHAF	12800	6/09 to 2/10	9.84 - 12.90		37504
013258	AFMSD Mumbai	3400	3/09	124.80	95.30	100300
	AH(RR)	13000	6/08 to 5/09	101.90 - 134		226800
	AFMSD Lucknow	20650	11/08 to 8/09	101.9 - 145.64		228230
	CH(WC)	620	8/08	160		40114
280606	AH(RR)	30	6/08	29120	23400	171600
011021	CH(SC)	56	1/10 to 2/10	3159 - 3162.50	2750	22992
010860	AH(RR)	1000	4/09	361	260	101000
	CH(SC)	260	10/09	373.36		29474
	CHAF	160	6/09 to 11/09	330 – 617.76		34221
260015	AFMSD Mumbai	30496	9/08 to 11/09	30.32 - 33.74	29.36	233916
	CHAF	5800	7/09 to 11/09	31.7 - 35.66		24346
270711	CH(SC)	6500	9/08	14.95	6.88	52455
					Total extra expenditure ₹	**4440913**

Source: Data compiled from supply order details furnished by DDOs

Apart from the fact that the DDOs procured drugs at widely varying rates, the rates were also much higher than the RC rate eventually obtained by DGAFMS. The extra expenditure in local procurement of nine drugs in the intervening period amounted to ₹ 44.41 lakh.

Requirement for RCs not projected accurately

A test check of local purchases of 11 PVMS items by three Depots during 2008-09 and 2009-10 revealed that even though the turnover of each of the 11 PVMS items

exceeded ₹ 20 lakh annually as shown below they were not considered for concluding RC:

Table- 46: Details of items not covered under rate contract (₹ in lakh)

PVMS No.	Nomenclature	Procured by AFMSD			2009-10	Procured by AFMSD			2010-11
		Delhi	M'bai	Lknw	Total	Delhi	M'bai	Lknw	Total
010123	Lignocaine HCL 2% Solution with Adrenaline 2 ml Inj	19.80	08.24	-	**28.04**	18.99	9.56		**28.55**
010253	Aspirin (Soluble) 350 mg Tab	19.65	-	08.23	**27.88**	19.65	4.49	7.54	**31.68**
010562	Interferon Beta 1 a prefilled Syringe contains 30 to 60 mcg	09.62	03.08	09.96	**22.66**	38.85	18.4	9.93	**67.18**
010565	Sumatriptan 50mg Tab	10.00	18.36	09.92	**38.28**	38.84	9.24	9.94	**58.02**
012491	Cough Sedative Syrup each 5 ml contain chlorpheniramine maleate (1 ltr)	28.98	09.57	11.60	**50.15**	9.67	9.07	2.97	**21.71**
012708	Calcium Carbonate 500 mg Tab	16.52	02.63	02.81	**21.96**	8.65	4.53	5.27	**18.45**
013223	Azithromycin dihydrate 250 mg Tab/Cap	26.02	19.00	09.35	**54.37**	18.54	9.50	9.99	**38.03**
013245	Erythromycin Ethyl Succinate for oral susp containing Erythromycin base 100 mg	19.98	09.52	17.71	**47.21**	9.99	17.38	2.40	**29.77**
010636	Rifampicin 450 mg + Isonex 300 mg combination	19.23		09.84	**29.07**	9.90	8.44	13.72	**32.06**
010721	Methyl Prednisolone Sodium Succinate 1000 mg Inj	09.98	01.39	09.98	**21.35**	10.97			**10.97**
011009	Erythropoeitin Human Recombinant 2000 IU	09.98	09.24	05.25	**24.47**	7.31		6.35	**13.66**

Source: Data compiled from supply order details furnished by DDOs

RCs in respect of the above items had not been concluded till March 2011. Consequently local procurements were made by the three AFMSDs at widely varying rates. It could be seen that although these items qualified for coverage under RC in 2009-10 and 2010-11, with reference to their annual consumption in 2008-09, yet these were not considered by DGAFMS for conclusion of RCs on the premise that they did not meet the threshold consumption limit of ₹ 20 lakh. This had resulted in extra expenditure of ₹ 34.94 lakh in their local procurement by the three AFMSDs.

Local purchase of medicines covered under Rate Contracts

We noticed that hospitals frequently resorted to local purchase of items at rates higher than those approved in the RC. It would be seen from the table below that six hospitals procured drugs included under RC from other firms at rates higher than the applicable RC rate resulting in an extra expenditure of ₹73.22 lakh:

Table- 47: Extra expenditure on LP of items covered under DGAFMS RC

Hospital	Extra expenditure (₹ in lakh)	Details of Medicines covered under RC procured locally
CH SC Pune	13.41	Inj Midazolam 5 mg, Tab Mycophenolate, Inj Bleomycin, Inj Irinotecan, Inj Erythropoietin, Tab Tranexamic Acid, Tab Diltiazem, Tab Ramipril, Tab Perindopril, Clindamycin Tube.
MH Ambala	5.11	
INHS Ashwini	26.30	
MH Kirkee	10.24	
MH Agra	14.53	
CH WC Chandimandir	3.63	
Total	**73.22**	

No action was taken to recover the extra amount on account of higher price paid from the RC firm in terms of the contract provisions.

CH SC Pune stated that LP of items covered under RC were made to tide over possible non-availability of drugs as RC supply orders take time to materialise and the DDOs did not have authority to place orders on the RC holding firms.

The contention is invalidated by the fact that the local purchases were made in anticipation of delay, without actually placing the orders on the RC firms in the first instance. Further, the contention that DDOs do not have authority to place orders on RC holding firms is also incorrect as DDOs are delegated powers to place orders on RC holding firms as per Note 8(b) to Schedule XII of delegation of financial powers.

LP of RC items available under DGS&D RC

As per DPM 2009, goods for which DGS&D has Rate Contracts can be procured directly from the suppliers.

We noticed that CH (SC) Pune, AFMSDs Delhi, Mumbai and Lucknow in violation of the instructions resorted to procurement of items locally at rates higher than the rate contracts. Thus, non observance of instructions to procure drugs through RC resulted in extra expenditure of ₹35.28 lakh on local procurement by four DDOs as shown in Table below:

Table-48: Extra expenditure on LP of items available under DGS&D RC

Item	DDO	Qty of LP	Period	Range of LP rate(₹)	RC rate (₹)	Extra expdr (₹)
X ray film 17x14	AFMSD Delhi	154000	8/10 to 1/11	45.24	39.46	889774
	AFMSD Mbai	18950	8/10	45.24		109488
	CH SC	10050	1/10 to 3/11	47.98 to 56		122172
X ray Film 12x10	AFMSD Delhi	160000	8/10 to 1/11	22.81	19.90	466000
	AFMSD Mbai	12000	8/10	22.81		34950
	CH SC	16400	1/10 to 3/11	41.52 to 22.52		163606
X Ray Film 10x8	AFMSD Delhi	65000	8/10 to 1/11	15.21	13.27	126133
	AFMSD Mbai	17450	8/10	15.21		33862
	CH(SC)	11100	1/10 to 3/11	16.40 to 18		71369
X Ray Film 15x12	CH(SC)	13250	1/10 to 3/11	33.78 to 40.50	31.36	73174
Hand gloves	AFMSD Delhi	588278	10/10 to 3/11	7.22 to 8.38	6.55	674224
	AFMSD Lknw	249000	2/11	7.95		347504
	CH SC	160000	1/10 to 3/11	7.25 to 11.23		415480
Total extra expenditure ₹						**3527736**

Source: Data compiled from supply order details furnished by DDOs

In reply to the query regarding procurement at higher rates CH SC Pune stated that keeping in view the past experience of delay in receipt from CPSE and RC Holding firms, items were procured locally from registered vendors for smooth functioning of hospitals. While it is accepted that supply of medical stores can brook no delay, CHSC could not produce any records regarding attempts made to source the items from the RC firms.

Fall Clause in Rate contracts

The rate contracts concluded by the DGAFMS contain a 'Fall Clause' to protect the interests of the buyer. The clause stipulates that in the event of a fall in rate during the currency of the RC the benefit shall be passed on to the buyer and for this purpose an undertaking is obtained from the vendor. It also devolves on the DGAFMS to carry out market survey to give effect to the Fall Clause.

We observed that during 2009-10 CH (SC) and CH (WC) locally procured 10 items during the currency of their RC, at rates lower than the rate in the RC concluded by the DGAFMS. Nevertheless the DGAFMS continued procurement through RCs at higher rates resulting in an extra expenditure of ₹ 3.71 crore, as shown below:

Table- 49: Extra expenditure due to non application of fall clause

PVMS No.	Nomenclature	LP Rate (₹)	RC Rate(₹)	Diff. (₹)	Quantity procured through RC	Extra expenditure (₹)
011613	Somatostatin Inj 3 mg	642	878.8	236.8	5315	1258592
012846	Monteleukast 5 mg Tab	38.48	56.16	17.68	163100	2883608
012487	Bromhexine syrup 5 ml containing 4 mg of bromhexine HCL bottle of 100-150 ml	9.55	11.44	1.89	400640	757210
013203	Amoxycillin 875 mg + Clavulanic acid 125 mg Tab	11.34	12.83	1.49	255154	380179
013263	Teicoplanin 400 mg Inj	559	707.20	148.20	10464	1550765
		426.40	707.20	280.80	27066	7600133
010129	Lignocaine HCL Jelly 2% Tube of 30 mg with plastic nozzle	13.34	27.69	14.35	91174	1308347
011472	Hydrogen Peroxide Solution	24	59.80	35.80	228275	8172245
011184	Indapamide SR 1.5 mg Tab	1.66	5.16	3.5	581100	2033850
		2.49	5.16	2.67	2835000	7569450
010886	Zoledronic Acid 5 mg Inj	280	395.20	115.20	952	109670
012946	Leflunomide 10 mg Tab	4.39	36.1	31.70	110640	3507288
					Total extra expenditure ₹	37131337

Source: Data compiled from supply order details furnished by DDOs

The above cases illustrate that implementation of the Fall Clause in the Rate Contracts needs to be monitored by the DGAFMS by undertaking appropriate market survey. The above cases also call for action vis-a-vis the suppliers for adjustment of the excess rates paid, after proper enquiry.

Recommendation No 8

DGAFMS may revamp the system of operation of RCs to make it more efficient and suited to the needs of consignees. Backlogs in concluding RCs may be removed. Effective steps may be taken to ensure that DDOs do not resort to local procurement without placing orders on RC holders in the first instance.

The Ministry in their response stated that the advantages of RC were well appreciated. The requirement of RCs with reputed brands was also agreed to and that the process of concluding more RCs was being resorted to and it had picked up pace.

5.6 Low compliance by AFMSDs in supply

AFMSDs at Delhi, Mumbai and Lucknow are the provisioning and stocking echelons responsible for servicing the requirements of hospitals by ensuring supplies through RCs and Central procurements. Indenting Procedure requires indents to be complied with as quickly as possible and reduce the non availability to the minimum by issuing suitable substitutes wherever possible.

The compliance rate of supply at three AFMSDs was extremely unsatisfactory as indicated below:

Table- 50: Compliance rate at AFMSDs

Depot	Period	No of items demanded	No of items issued	Compliance rate (percentage)
AFMSD Lucknow	2006-07 to 2010-11	680750	272446	40
AFMSD Delhi Cantt	2006-07 to 2010-11	679584	330568	49
AFMSD Mumbai	2006-07 to 2010-11	713578	305743	43

The low compliance was attributed by the depot to manpower deficiency, large inventory making it impossible to procure all items, varying MMFs and restricted financial powers. This perforce results in increased allotment to hospitals under local purchase by the DGAFMS as brought out in Chapter II of this report and increased local purchase.

Delay in compliance

The maximum time laid down in Indenting Procedure of December 2005 for compliance of indents by AFMSDs is eight weeks up to the stage of despatch (viz. 56 days). We examined cases of March 2009, March 2010 and March 2011 in respect of AFMSD Lucknow covering Eastern Command and Central Command, which revealed that compliance within time was only 5 *per cent*, 6 *per cent* and 29 *per cent* during March 2009, 2010 and 2011, respectively, as detailed below:

Table- 51: Delay in issue of stores

Month	Total cases	No. of cases processed in time	No. of cases delayed beyond 56 days	Percentage of compliance	
				Within time frame	Beyond time frame
March 2009	92	05	87	05	95
March 2010	268	17	251	06	94
March 2011	104	30	74	29	71

While compliance by AFMSDs during 2006-07 to 2010-11 fell short of the requirement there were also delays in issue even where stores were available for issue against indents. This necessitated local purchases by the dependent hospitals to meet their requirements, which were not subject to quality inspection.

Local procurement of drugs declared Not Available (NA)

The indenting procedure laid down by the DGAFMS in December 2005, stipulates that expendable items demanded will be issued to the extent of availability in stock in AFMSDs and items not available will be marked as 'NA' and intimated to the indenting unit within eight weeks. The indenting units are empowered to make LP of such items to meet the urgent requirement not exceeding two months.

We collected information from 10 hospitals for December 2008, 8 for December 2009 and 5 for December 2010 in order to assess the impact of NA certificates on local procurement. Supply orders against the NACs received were analysed after allowing 7 days for processing the case and 14 days for inviting quotation. In other words, delay in LP was counted beyond 21 days from the receipt of the NACs. The following picture emerged:

Table- 52: Delay in issue of NA and LP order

Month	No. of Hospitals	No. of cases	NA received within time	NA delayed beyond 56 days		LP made within time	LP delayed beyond 21 days	
			No.	No.	Range	No.	No.	Range
December 2008	10	125	51	74	19-206 days	8	117	4-245 days
December 2009	8	91	56	35	5-171 days	9	82	4-124 days
December 2010	5	75	0	75	36-141 days	23	52	5-178 days

It can be seen from the above that not only were the NA certificates received late but also the hospitals took an unduly long time to locally procure a large number of items, raising doubts about the urgency of the requirement. Such medicines could have been procured under existing RCs at lower rates.

Recommendation No 9

The AFMSDs may ensure supplies to dependent hospitals, so that local procurement by such hospitals is minimised.

The Ministry agreed with the recommendation.

5.7 Local procurement of drugs

The DPM 2005 permits local procurement for meeting requirements of only ad hoc and urgent nature. The local procurement of medical drugs/stores is governed by the system of open/ limited tendering as per the delegation of financial powers made to hospitals.

As explained in the Chapter on Financial Management, the share of LP in total procurements has shot up by 135 *per cent* during the period between 2006-07 and 2010-11. Consequently, LP increased to cover more than half the procurements made in AFMS instead of for emergent requirements. The main causes for this are the drastic fall in number of RCs and failure of AFMSDs to service the requirements of hospitals.

Local procurement of drugs at widely different rates

A test check of local procurements of 15 PVMS drugs by hospitals covered under the Performance Audit revealed wide variation in the rates of procurement during 2006-07 to 2009-10 as indicated below:

Table- 53: Variation in rate of PVMS drugs across hospitals

Sl. No.	Description of Item	PVMS No.	Variation in rate (in ₹) (percentage variation)			
			2006-07	2007-08	2008-09	2009-10
1.	Diclofenac (Voveran) Gel 1% Tube of 30 gm	012920	6.98 to 59.17 **(748)**	5.93 to 43 **(625)**	7.5 to 45 **(500)**	7.24 to 48 **(563)**
2.	Fluconazole 150 mg Cap/Tab	010660	3.6 to 3.81 **(6)**	1.5 to 28 **(1767)**	0.33 to 31.5 **(9446)**	1.3 to 28.90 **(2123)**
3.	Inj Mannitol 20% bottle of 350 ml	011513	55.86 to 198 **(254)**	34.71 to 110 **(217)**	20 to 109 **(445)**	19.4 to 99.84 **(415)**
4.	Inj Calcium Gluconate 10% 10 ml	012712	0.34 to 23 **(6665)**	1.88 to 28.50 **(1416)**	2.1 to 23.99 **(1042)**	2.45 to 24.11 **(884)**
5.	Diclofenac Sodium Tab 50 mg	010257		0.09 to 1.46 **(1522)**	0.18 to 1.19 **(561)**	0.17 to 18 **(10488)**
6.	Tramodol HCL 50 mg/ml Inj	010294	3.96 to 20.6 **(420)**	3 to 23 **(667)**	2.86 to 25.90 **(806)**	2.04 to 25 **(1126)**
7.	Inj Multivitamin	012718	5.68 to 12.3 **(117)**	4.18 to 15 **(259)**	1 to 13 **(1200)**	2.69 to 14.9 **(454)**
8.	Thiopentone Inj of 0.5 mg w/o water for Inj	010111	21.67 to 32.50 **(50)**	19 to 56.85 **(199)**	21.84 to 50 **(129)**	23 to 45.75 **(99)**
9.	Bupivacaine HCL 5 mg/ml 20 ml Inj	010115	15.13 to 47.90 **(217)**	15.13 to 49 **(224)**	14.85 to 55.50 **(274)**	16.13 to 32.5 **(102)**
10.	Bupivacaine HCL 5 mg/ml heavy 4ml Inj	010116	9.75 to 16.90 **(73)**	1.76 to 90 **(5014)**	7.45 to 47.86 **(542)**	8.75 to 35.89 **(310)**
11.	Paracetamol 325 mg and Ibuprofen 400 mg Tab	010278	0.50 to 3.95 **(690)**	0.43 to 6.20 **(1342)**	0.47 to 4.80 **(921)**	0.40 to 8.50 **(2025)**
12.	Pantoprazole 40 mg Tab	011637	0.84 to 8.59 **(923)**	0.61 to 8.59 **(1308)**	0.62 to 5.6 **(803)**	0.55 to 6.24 **(1035)**
13.	Omeprazole 20 mg Cap	011636	0.60 to 4.59 **(665)**	0.29 to 4.59 **(1483)**	0.29 to 4 **(1279)**	0.30 to 19.9 **(6533)**
14.	Oral Rehydration powder sachet of 20.5 mg	011688	1.58 to 11.4 **(622)**	1.58 to 12.93 **(718)**	2.97 to 12.5 **(321)**	2.35 to 12.5 **(432)**
15.	Inj Pentazocin 30 mg amp of 1 ml	010288	3.05 to 5.1 **(67)**	2.98 to 5 **(68)**	2.65 to 4.5 **(70)**	2.9 to 4.09 **(41)**

(The range in rates indicated under a column is between various hospitals)
Source of data: Data compiled from information furnished by hospitals indicating procurement rate of above items.

It can be seen that even in respect of common drugs in use by all hospitals there was wide variation in the procurement rates. For example for Oral Rehydration powder, (PVMS-011688) the rate varied from ₹1.58 {CH (AF) Bengaluru} to ₹12.93 (INHS Ashwini) and for Voveran Gel (PVMS-012920) from ₹6.98 (MH Ambala) to ₹ 59.17 (INHS Jeevanthi).

Similarly, the variation in local procurement rates in respect of NIV items is shown under:

Table- 54: Variation in rate of a few NIV items across hospitals

SL. No.	Items	Variation in rate ₹ (percentage variation)		
		2007-2008	2008-2009	2009-2010
1	Inj Insulin Glargine 300 IU 3	451.00 to 2282.92 **(406)**	453 to 2194.40 **(384)**	297.97 to 2230.00 **(649)**
2	Inj Insulin Glargine 300 IU 10	Nil	1839 to 2131 **(16)**	417.89 to 2330.00 (**458)**
3	Suspension digene 170 ml	Nil	12 to 46.50 **(288)**	9.5 to 41.50 **(337)**
4	Inj Dextrose 10%	11.50 to 30.00 **(161)**	10.34 to 30.40 **(194)**	12.8 to 150.00 **(1072)**
5	Tab Voveran SR 150mg	0.5 to 2.5 **(400)**	0.49 to 3.8 **(676)**	0.73 to 3.30 **(352)**
6	Inj Sodium Hyaluronate 1%	49.90 to 1513 **(2932)**	368.90 to 688 **(87)**	459.00 to 1800 **(292)**
7	Inj Diltiazem	20.1 to 23.00 **(14)**	18.55 to 24 **(29)**	18.19 to 23 **(26)**
8	Inj Adrenaline	1.75 to 5.7 **(226)**	1.27 to 17.60 **(1286)**	1.41 to 45.50 **(3127)**
9	Inj Fentanyl	12.90 to 35 **(171)**	12.90 to 129.20 **(902)**	12.9 to 126 **(877)**
10	Inj Lognocaine 4% Topical	17.00 to 245.00 **(1341)**	21.99 to 24.30 **(11)**	19.80 to 23.60 **(19)**
11	Inj Lignocaine with Adrenalin	15.06 to 26.00 **(73)**	8 to 27.90 **(249)**	6.25 to 24.00 **(284)**
12	Inj Magnesium Sulphate	1.2 to 7.52 **(527)**	0.69 to 21.00 **(2944)**	0.84 to 6.80 **(710)**

(The range in rates indicated under a column is between various hospitals)

Source of data: Data compiled from information furnished by hospitals.

The variation in rates of items commonly used such as Digene and Inj Dextrose was inexplicably wide. In respect of Digene (170 ml bottle) hospitals had procured it at rates ranging from ₹ 9.50 per bottle (AH R&R) to as high as ₹ 41.50 (178 MH). Similarly the procurement rate of Inj Dextrose varied from ₹ 12.8 (CH WC) to as high as ₹ 150 (MH Kirkee).

The fact that there are huge price variations in local procurements of drugs across various hospitals ranging upto even 100 times, implies one of the following two possibilities:

- Drugs in many cases are being procured locally at exorbitant prices.
- Drugs in many cases are being supplied at abnormally low prices which raise serious questions about their quality given the fact that supplies in local

procurement are accepted in hospitals based on only visual inspection by a Board of officers.

The Ministry stated that the rates of drugs vary depending on brands and quantity procured. It added that the process for concluding more RCs was on and it had picked up pace.

Recommendation No 10

In view of the wide variation in rates and brands of PVMS/NIV drugs/consumables, locally procured across hospitals, DGAFMS may take effective steps to regulate their procurement by suitable standardisation of specifications and increasing their coverage through RCs and central purchase by AFMSDs.

Local purchase of PPP items from other than Pharma Central Public Sector Enterprises (CPSE)

In August 2006, the Ministry of Chemicals and Fertilisers required all purchasing departments of Government of India to place orders on Pharma 'Central Public Sector Enterprises' (CPSE) and their subsidiaries for pharmaceutical products. It also stipulated that drugs would be supplied at the rates fixed by the National Pharmaceutical Pricing Authority (NPPA) less discount of 35 *per cent*. In all, 102 items were covered under this Purchase Preference Policy (PPP).

However, it was observed that depots/hospitals resorted to local purchases from suppliers other than CPSEs as shown in the Table 55.

Table- 55: Details of local purchases from other than CPSEs

Depots/Hospital	Period	Value (₹ in lakh)
AFMSD Lucknow	2008-09 to 2010-11	55.73
AFMSD Mumbai	2007-08 to 2010-11	176.00
AFMSD Delhi Cantt	2007-08 to 2010-11	56.23
CH NC	2007-08 to 2010-11	27.19
166 MH	2007-08 to 2010-11	41.27
92 BH	2007-08 to 2010-11	31.24
MH Jodhpur	2007-08 to 2010-11	28.61
AH RR	2009-10 to 2010-11	10.42
CH WC	2009-10 to 2010-11	3.95
MH Ambala	2009-10 to 2010-11	9.13
MH Deolali	2007-08 to 2009-10	9.56
MH CTC Pune	2007-08 to 2010-11	14.21
Total		**463.54**

The hospitals contended that CPSE firms did not supply medicines in time, no response was received from them and no authorized dealers were available in the

region. They also asserted that the CPSE rates in some cases were higher than LP rates.

DGAFMS, through the Ministry of Defence, should have approached the Ministry of Chemicals & Fertilizers to address their concerns with regard to the PPP policy.

5.8 Individual cases of irregularity in procurement

Case 1: Irregular tender enquiry by INHS Jeevanthi

INHS Jeevanthi followed the system of issuing Tender Enquiry (TE), calling for discounts to be offered on the MRP without indicating the item/quantity required. The vendor offering maximum discount was accepted, on whom all the orders were placed during the year.

The system of procurement adopted by INHS Jeevanthi is unprecedented and is not supported by provisions in any manual, code, rules or regulations.

Case 2: Procurement of PVMS items as NIV items by MH Deolali and at MH CTC

As per delegated powers local purchase of PVMS items can be made after obtaining 'NAC' from AFMSD. For local purchase of 'NIV' items, no NAC is required. We noticed instances where hospitals resorted to local purchase of PVMS items by indicating them as NIV items. The cases are discussed below:

MH Deolali is dependent on AFMSD Mumbai for supply of items under PVMS list. However, to avoid obtaining NAC from AFMSD, MH Deolali procured 20 PVMS items valuing ₹ 3.36 lakh indicating them as 'NIV' items. MH Deolali stated in reply that it was not in the list of DDO. In fact, as MH Deolali is not a DDO and is dependent on AFMSD Mumbai, it has to obtain a NAC from the Depot for procurement of PVMS items as per the delegated powers. Such procurements illustrate misuse of delegated powers.

At MH CTC we noticed that 113 PVMS items valuing ₹ 63.77 lakh were procured as 'NIV' items. In reply MH CTC stated that the procurements were made under emergency as the drugs were life saving medicines and any delay in their administration would have proved fatal. MH CTC, however, did not clarify as to why these medicines were indicated as 'NIV' items.

5.9 Overstocking of drugs

As per the prescribed stocking policy, quantities of reserve holding and working stocks are calculated based on monthly maintenance figure (MMF) which is the

average of preceding ten months consumption. For short life items the stocking is permitted for six months (including reserve of three months) and for long life items for nine months (including reserve of three months) based on the MMF.

The position at two AFMSDs, one Base Hospital, three Military Hospitals, one Field Hospital and one Sectional Hospital is discussed below:

(i) AFMSD Delhi

At AFMSD Delhi we noticed that as on 31 March 2011, the Depot held 210 drugs, valuing ₹ 3.80 crore in excess of the requirement based on the average MMF. Of the 210 drugs the quantity held in respect of 96 drugs, constituting 46 *per cent*, would be sufficient for more than two years, by which time their shelf life would have expired as shown below:

Table- 56: Stratification of surplus stock at AFMSD Delhi

Drugs held surplus	Quantity sufficient for		
	Up to 2 years	2-5 years	More than 5 years
210	114	55	41

In fact in case of some of the medicines, overstocking was so huge that it covered the requirement of 6 to 109 years based on average MMF, as shown in the table below:

Table- 57: Stock held at AFMSD Delhi

AFMSD Delhi							
PVMS No.	Nomenclature	Cat. of Item	Average MMF	Stock held*	Over stocking {Stock held - (Avg MMF x 6 for SL and 9 for LL)}	Cost of over stock in ₹	Period required for consumption in year
050288	Stop cock 3 way	LL#	59.29	24587	24053.39	187616	35
050317	Tubing drain	LL	23.67	31299	31085.97	194288	109
100781	Wire Liga	LL	18.07	1934	1771.37	663201	9
130196	Polybutylate	LL	15.75	3276	3134.25	719028	17
011972	Nourish Renal 100 gm	SL^	910.75	70474	65009.5	2358544	6
221601	AV Fistula	LL	102.88	12957	12031.08	12031	10
012840	INH+PAS GRANULES	SL	170	30354	29334	625108	15
170124	Fibrinogen	LL	3.94	390	354.54	856271	8
011112	Inj Nicorandil 48 mg Amp	LL	15.38	5563	5424.58	603648	30

#LL = Long life, ^ SL = Short life ***As on 31.3.2012***

We observed that over-provisioning of medical stores by the DGAFMS and the Commandant, AFMSD, Delhi had resulted in expiry of shelf life of the stores in storage leading to heavy loss.

Our analysis of procurements of two drugs, involving loss of ₹ 88.25 lakh, revealed the following:

Case 1:

The MMF of the item PVMS No. 011972 Nourish Renal was indicated as 118 packets (sachets) in the account card. In November 2006, the AFMSD placed an order on M/s Plus Mark Pharma for supply of 10,000 packets of the said medicine @ ₹ 55.40 per packet which was received by the depot in March 2007 with expiry date of January 2009. In addition to this the DGAFMS also issued a supply order, on 2 December 2006, on M/s Vital Neutraceuticals Pvt Ltd. Ambarnath against RC, concluded with the firm on the same day, for procurement of 1,58,004 sachets of the medicine @ ₹33.78 per sachet. Against this the depot received 60,000 sachets in January 2007 with expiry date of December 2008.

Out of 70,000 sachets available with the depot, only 6,646 sachets were issued during January 2007 to September 2008 and life of remaining 63,354 sachets expired in December 2008 and January 2009. Thus over-provisioning of stores resulted in loss of ₹ 23.56 lakh.

Case 2:

The MMF of PVMS No. 012840 INH+ PAS Granules is 170 based on the average consumption between January 2006 and October 2006. Against supply order issued by the DGAFMS on 14 December 2006 the depot received 25200 Nos in February 2007 with date of expiry as December 2009.

As of February 2007, the depot held 25,265 Nos of the item (65 previous balance + 25200) of which 18,388 had crossed the stipulated life in December 2009 without any issue beyond June 2009. The value of this stock was ₹ 39.18 lakh.

Although the Depot indicated MMF as 757 this was not borne out by the consumption pattern during the period January 2006 to October 2006.

In addition to the above, 12,000 Nos of the same item, for issue to ECHS, were also received by the depot in May 2007, with date of expiry as March 2010 under procurement order issued by the DGAFMS in March 2007. Out of this 11,966 Nos attained their stipulated shelf life and were lying in stock as of May 2011 resulting in loss of ₹ 25.50 lakh.

Thus in the above two cases alone, medical stores aggregating ₹ 88.25 lakh had crossed the shelf life in storage due to procurement far exceeding the requirement, resulting in avoidable loss to the exchequer.

(ii) AFMSD Mumbai

At AFMSD Mumbai we noticed that as on 31 March 2011, the depot was holding 460 drugs in excess of authorisation. Analysis of the sufficiency of the quantity held revealed the following.

Table-58: Stratification of surplus stock at AFMSD Mumbai

Drugs held surplus	Quantity sufficient for		
	Up to 2 years	2-5 years	More than 5 years
460	263	136	61

As can be seen from the table, of the 460 drugs, 197 drugs (constituting 43 *per cent*) had stocks sufficient for a period of more than two years, by which time the life would expire.

Similarly, at AFMSD Mumbai, there were several cases of overstocking, of which one medicine had been stocked to last for 346 years, as indicated in the following table:

Table-59: Stock held at AFMSD Mumbai

AFMSD Mumbai						
PVMS No.	Nomenclature	Cat. of Item	Average MMF	Stock held	Over stocking {Stock held - (Avg MMF x 6 for SL and 9 for LL)}	Period required for consumption in Year
010706	Cyclosporin A micro emulsion Cap 100 mg	SL^	231.67	46732	45342	17
011108	Tab Isosorbide dinitrate 10 mg	SL	37765	6634850	6408260	15
011179	Tab Captoprill 25 mg	SL	390	211800	209460	45
011376	Trioxsalen Tab 25 mg	LL#	1286.67	491910	480330	32
011657	Tab 3-Aminno Salicylic acid 400 mg	LL	1058.75	158710	149181	12
011765 N	Voglibose 0.2 mg Tab	SL	570.58	2365662	2362239	346
012489 B	Cough expectorant syrup	SL	3940.29	7308276	7284634	155
012690	Drotavenine HCL 1% Inj 20 mg/ml	SL	105.46	41846	41213	33

#LL = Long life, ^ SL = Short life

(iii) Other hospitals

We noticed that at one Base Hospital, Military Hospitals Allahabad, Jabalpur, Gaya, one Field Hospital and Sectional Hospital Talbehat, the laid down procedure for calculation of MMF was not adhered to. A test check of the calculation of MMF for 132 medicines during 2010-11 at these hospitals revealed that the MMF worked out was either in excess or less than the average consumption in the preceding 10 months.

Thus procurement procedures were not followed scrupulously by the indenting/procuring authorities resulting in loss to the tune of ₹ 88.25 lakh at AFMSD Delhi alone.

5.10 Procurement of drugs with less than prescribed shelf life

The stocking policy laid down by DGAFMS requires that the AFMSDs do not accept expendable stores having less than five-sixth of their residual life.

Test check for the month of December in 2008, 2009 and 2010 at AFMSD Lucknow revealed that 22 items valuing ₹46.64 lakh with shelf-life less than the five-sixth prescribed were accepted.

Test check for the month of January in 2008, 2009 and 2010 at AFMSD Delhi revealed that 52 items valuing ₹2 crore with shelf-life less than the five-sixth prescribed were accepted.

Test check for the month of January 2008 at AFMSD Mumbai revealed that 20 items valuing ₹23.07 lakh were accepted in January 2008 with less than the prescribed residual shelf life.

5.11 Procurement of deleted drugs

A 'Drug Review Committee' (DRC) at DGAFMS undertakes review of drugs in PVMS list and declares them as obsolete or obsolescent or as suitable for deletion. Such declaration is made under an "Amendment List" (AL) which is then issued to the AFMSDs and DGMS's of Army, Navy & Air Force to ensure implementation by the hospitals under their respective jurisdiction. Following parameters govern the deletion of a drug from the PVMS list:-

- Drug not in vogue;
- Drug not in very high demand;
- Drugs which have become obsolete due to life threatening side effects; and
- Introduction of a new drug.

Based on the DRC meeting in September 2008, the DGAFMS issued the AL to the DGMS's in June 2009 for implementation.

We noticed that even as late as in March 2011, the hospitals had continued to procure the drugs that were deleted as shown in the table below:

Table-60: Details of procurement of deleted drugs

Hospital	Value (₹ in lakh)	Illustrative list of deleted medicines procured
Command Hospital WC	18.66	Erythroprotein, Norfloxacine Eye drop, Amikacin Sulphate, Salbutamol.
Army Hospital RR	9.20	Secnidozole, Thalidomide 100 mg, Glutamide 250 mg, Lignocaine

Hospital	Value (₹ in lakh)	Illustrative list of deleted medicines procured
Base Hospital Delhi Cantt	2.56	Tab Doxazocin, Thalidomide 100 mg, Tab Ketoanlogue Tab Betalistidine
MH Gaya	1.17	Piroxicarm 40 mg, Cetrizine 100 mg, Levo Salbutomal, Sulphacetamide
Base Hospital Barrackpore	2.59	Tab Penicillamine 250 mg, Tab Leflunamide, Tab Cetrizine, Lignocaine
CHAF Bangalore	4.83	Erythyroprotein, Norfloxacine, Tab Salbutamol 4 mg, Inj Methyl Prednislone
INHS Ashwini	14.06	Erythyroprotein, Norfloxacin Eye Drops Betahestine 16 mg, Paradichlorobenzene
INHS Jeevanthi	0.71	Gabapentin, Keototifn 1mg Tab, Tab Salbutamol 4 mg, Tab Decnidazole
MH CTC Pune	4.36	Allendronate sodium 35 mg, Norfloxacine eye drops, Salbutamol 4 mg, Isoprenaline HCI
CH SC Pune	21.52	Inj Granulocyte, Inj Lignocaine, Tab Doxazosin, Inj Amikacin Sulphate
MH Alwar	Not available	Gabapentin 400 mg, Salbutamol4 mg, Nifedifin 10 mg, Erythyroprotein
Total	**79.66**	

CH WC stated that though an item may have been deleted from PVMS list it was not banned. AH (R&R) and BH Delhi Cantt replied that procurement was made as these were demanded by the Wards. MH Gaya, MH Alwar and BH Barrackpore stated that AL had not been received by them. CH (AF) Bengaluru and INHS Ashwini contended that use of medicines would be gradually stopped in a phased manner. INHS Jeevanthi stated that AL had not been received by the hospital and the medicines procured were issued to avoid loss.

MH CTC stated that these drugs were obsolete only in PVMS and were not banned by the Drug Controller of India and hence procured as per requirement. CH (SC) stated that procurement of deleted drugs was made as these were not banned in India though deleted from PVMS list.

It can thus be seen that the system evolved by the DGAFMS to delete procurement of drugs either on grounds of a drug not being in vogue or high demand or having threatening side effects or new substitute drug having been introduced, was not being implemented strictly at the hospital level.

Such deviations in procurement of deleted drugs vitiate the established system designed to achieve better patient care. The continued procurements even after issue of the Amendment List also show that the DGAFMS was not monitoring its own instructions in this regard.

5.12 Reserves for disaster relief management and war maintenance

Bricks for Disaster Relief Management

To ensure quick response for management of disaster/emergency and preparedness for International Missions, the DGAFMS, in August 2006, decided to stockpile certain medical and surgical items. This system of stockpiling has been termed as 'Brick'. The examination of the holdings under Brick, earmarked to AFMSD Lucknow and Mumbai, revealed shortfalls, as shown below:

Table-61: Details of authorisation and holding of Brick

Type of Brick	No. of items required	No. of items held for bricks		No. of items with Nil stock at		Percentage of short fall	
		Lucknow	Mumbai	Lucknow	Mumbai	Lucknow	Mumbai
		No.	No.	No.	No.		
International	94	54	25	40	69	43	73
Basic Medical	119	53	69	66	50	55	42
Surgical	219	78	180	141	39	64	18

Data compiled from details furnished by AFMSDs about stock held for bricks

Thus it would appear that the disaster management plan was yet to be fully complied with even after lapse of three years of its sanction. This may hinder quick response to emergencies.

War maintenance reserve

In supersession of all instructions issued earlier, the DGAFMS formulated a revised instruction in January 2004, re-iterated in March 2011, governing 'War maintenance reserve'. The reserve was to be maintained by AFMSDs/AMSDs/FMSDs on behalf of the Commands as per the scale per set of 'Expendable' and 'Non Expendable' items indicated therein for issue on short notice. The depots are required to maintain the required number of sets on behalf of the Commands identified therein with the provision of periodical turn over of the stocks of items to avoid loss due to expiry of life of drugs.

Our examination revealed that as of April 2011 there was deficiency of 46 *per cent* of expendable and 100 *per cent* of non expendable items stocked against war maintenance reserve at AFMSD Lucknow.

Recommendation No 11

Effective steps may be taken to replenish items listed out in Brick and war maintenance reserve so that these can be issued at short notice.

The Ministry stated that a system was already in place and was also followed.

Based on the instances of deficiencies in stockpiling of items as brought out in the paragraphs above, it is obvious that the system was not being complied with and needed redressal.

5.13 Other aspects of contract management

Delay in materialisation of supply orders under RC/LP

We carried out test check of materialisation of supply orders placed by CH SC, CH (AF) and INHS Ashwini between October 2010 and December 2010 under RC/LP. The details of supply orders placed by the three hospitals are given in the table below.

Table-62: Delays in supply under LP and RC orders

	CH SC		CH(AF)		INHS Ashwini	
	LP	RC	LP	RC	LP	RC
No. of supply orders placed	315	Nil	786	35	2276	23
Supplied within PDC	162	Nil	634	12	214	Nil
Supplied after PDC	153	Nil	152	23	2062	23
Delay	49%	Nil	19%	66%	91%	100%

Data compiled from information furnished by hospitals

It can be seen from the above table that at INHS Ashwini 91 *per cent* of LP orders were supplied after the scheduled delivery date. At CH SC and CH (AF) the delay in LP orders was 49 *per cent* and 19 *per cent,* respectively. Similarly, there were large delays in the materialisation of orders placed under RC. At INHS Ashwini, none of the orders placed under RC materialised within the specified delivery schedule. At CH (AF) there was delay in delivery in 66 *per cent* of orders under RC.

Risk and expense purchase

DPM-2005 enables a purchaser to effect risk and expense purchase in the event of a supplier failing to honour the contracted obligations.

We saw in AFMSD Lucknow that despite incorporation of risk expense clause in the supply orders, the same was not invoked in 31 test checked cases out of 1303 cases cancelled by the Depot during the period 2005-06 to 2010-11, resulting in excess purchase cost of ₹ 35.16 lakh remaining unrecovered.

Non replacement of medicines nearing expiry

As per the instruction issued by DGAFMS in October 2006 supply orders placed by DDOs should contain a clause for free replacement of medicines lying unconsumed three months before date of expiry by the vendors. In case the vendors do not replace the stock, the DDOs are empowered to make recovery of the cost of medicines to be replaced from pending bills.

In the following cases, we noticed that no action was initiated by the DDOs to ask the vendors to replace the unconsumed stock. In cases where the vendors were intimated about the replacement, no recovery could be made by the DDOs due to non-compliance by the vendors.

Table- 63: Action not taken by the DDOs

Hospital/Depot	Value of stores held
AFMSD Delhi	₹ 5.01 crore
AFMSD Lucknow	₹ 4.34 crore

Table-64: Action initiated but recovery not made

Hospital/Depot	Value of stores held
AFMSD Mumbai	₹ 4.70 crore
CH WC Chandimandir	₹ 0.17 crore (LP) ₹ 0.51 crore (RC)

Thus, despite measures put in place for effecting economy in purchase and safeguarding Government interest by way of replacement of unconsumed stock, the post contract management of procurement revealed loose implementation of prescribed procedures which resulted in avoidable holding of drugs without replacement.

5.14 Quality inspection

DGQA is mandated to carry out sample inspection of all supplies against RC either through its own test facilities or at NABL accredited laboratories. It also carries out inspection of local purchase of all drugs exceeding ₹ 1.5 lakh and in all cases where a complaint has been reported by hospitals. In addition, post lab test of drugs held in stock is required to be undertaken by DGQA based on samples forwarded by the hospitals. Controllerate of Quality Assurance (Materials) Kanpur [CQA (M)] is the Authority Holding Sealed Particulars (AHSP) of drugs and CQA (General Stores) Kanpur is the AHSP for surgical items.

We noticed deficiency in holding of specifications and technical staff, inadequate test equipment/facilities, poor coverage of AMC of the test equipment and non-adherence to test procedure as explained in the succeeding paragraphs.

Deficiency of authorised specifications

CQA (M) held the approved specifications for only 592 drug items out of 985 maintained in PVMS Section '01'. Similarly CQA (GS) held the specifications of only 178 surgical items out of 408 mentioned in PVMS Section '05'. Thus there was deficiency of 40 *per cent* and 56 *per cent* in the specifications held by CQA (M) and

CQA (GS), respectively. This meant that the AHSP would not be able to undertake proper inspection of drugs and surgical items.

Deficiency of technical staff

The deficiency in the cadre of technical staff at SQAE (GS) Delhi increased from 35 *per cent* in 2008-09 to 38 *per cent* in 2010-11 against the authorization. In case of CQA (M), deficiency ranged from 32 *per cent* in 2005-06 to 42 *per cent* in 2010-11 and in case of CQA (GS) it ranged from 32 *per cent* to 40 *per cent* during the same period. The deficiency in technical staff places constraints on the effectiveness and quality of testing.

Non availability of test facilities

Test facilities are required for evaluating physical parameters and chemical composition. In the absence of such test facilities at SQAE (GS) New Delhi, CQA (GS) Kanpur and CQA (M) Kanpur, the drugs were cleared with partial testing as discussed below.

SQAE (GS) Delhi

SQAE (GS) Delhi is authorised 15 types of test equipment. As of March 2011, five items of equipment were not held by it. Of the remaining ten equipment held, two equipment viz. Ultra Violet Spectrophotometer and High Performance Liquid Chromatograph (HPLC) procured in January 1997 and August 1999 were reported to be obsolete and suffering from frequent breakdowns.

CQA (M) Kanpur

CQA (M) held 52 test equipment. However, two equipment viz. UV spectrometer and Constant Temperature Bath were under repair.

CQA (GS) Kanpur

CQA (GS) Kanpur did not hold 3 of the 25 test equipment required.

Post Lab Test

In October 2006, the DGQA formulated the guidelines for selection of samples for testing of locally procured drugs to be undertaken as Post Lab Test (PLT) of tablets, capsules, injectables (liquid), powder injectable, ointments/creams (less than 100 gms), sutures, syringes (dry), syrups (liquid) and eye drops. The guidelines indicated the types of tests for the above categories and the quantity to be expended in the test. In November 2006, DGAFMS envisaged repeat test under certain circumstances. The DGAFMS instructed AFMSD/AMSDs and Transfusion Centres to adhere to these instructions.

In February 2008, the DGAFMS reiterated the instructions as the DGQA had intimated that sufficient quantity of local purchase samples were not being forwarded to SQAE/CQA (M) Kanpur for testing. The DGMS (Army/ Navy/Air force) were also required to instruct the hospitals/Units under their command to comply with the DGQA's instructions.

Compliance by hospitals

We examined the compliance by AFMSDs, DDOs and other hospitals to the requirements of Post Lab Test in respect of local procurement made by them.

Non compliance to PLT was noticed at all major hospitals viz. CH (SC), AH (R&R), INHS Ashwini, Base Hospital Delhi Cantt, MH Amritsar, MH Kirkee and MH Akhnoor.

The compliance by CH (AF) Bengaluru was meagre as it had sent samples of only three drugs in 2009-10 and five drugs in 2010-11. Although CH (WC) claimed that samples of drugs were sent to CQA on regular basis, the records produced for audit actually pertained to vigilance check on supply of spurious drugs as directed by HQ WC and not of PLT. The compliance by AFMSD Mumbai could not be ascertained as it had maintained no record of samples sent for PLT until February 2010. Subsequently the depot sent 78 samples from March 2010 to May 2011. MH Ambala intimated that it had sent samples of 28 drugs during March 2008-11.

The non-compliance by hospitals was attributed to meagre quantities involved in local procurements. A Board of Officers was being detailed every month to see the quality of medicines with reference to their expenses after physical verification of the medicines and samples being sent to CQA only in case of complaints by Wards against a particular batch of medicine.

Post Lab Test at CQA (M)

Volume of testing done by CQA (M) in respect of LP samples received from Medical Units was as under.

Table-65: Samples inspected and sentenced

Year	No. of Samples Received	No. of Samples Rejected	Samples Rejection (in percentage)
2006-07	210	31	15
2007-08	166	37	22
2008-09	165	33	20
2009-10	172	35	20
2010-11	125	39	31
Total	838	175	

It could be seen from the above that rate of rejection had increased from 15 *per cent* to 31 *per cent* during 2006-07 to 2010-11. The average rejection during the three year period of 2008-09 to 2010-11 was 24 *per cent* approximately.

Inspection

All purchases exceeding ₹ 1.50 lakh as well as procurements under the rate contract are to be inspected by the DGQA or by the NABL duly supported by their Inspection Note. We noticed that drugs were accepted by the hospitals even without the Inspection Note as discussed below.

(i) In 53 orders, each valuing above ₹ 1.50 lakh, the medicines were accepted by CH WC without Inspection Note during October 2009 to March 2010.

(ii) At AH (R&R), we test checked sample orders of cases where the local purchase had exceeded the limit of ₹ 1.5 lakh. It was seen that in four cases of purchase of medicines valuing ₹ 24.10 lakh the Commandant was indicated as the inspection authority. The stores supplied were inspected by the Board of Officers of the hospital and accepted though the supplies had not been accompanied by Inspection Note of DGQA/NABL report, thus contravening the said instructions.

(iii) Similar test check of six orders valuing ₹ 30 lakh at CH SC revealed that the inspection agency was indicated as Commandant of the hospital. The supplies were inspected and accepted by the Board of Officers even though it was not accompanied by inspection note of DGQA/NABL.

(iv) Test check of seven orders valuing ₹ 27.61 lakh, each valuing above ₹ 1.50 lakh, placed by AFMSD Mumbai indicated inspection of the stores by the depot. The supplies were inspected and accepted by the board indicating submission of NABL report by the supplier. The test report was, however, not verifiable from the documents accompanying the payment of the bills.

(v) Similarly, AFMSD Delhi accepted stores against four orders valuing ₹ 37.79 lakh, based on test reports from laboratories which are not accredited by NABL. Although the orders specifically provided report to be supplied by NABL accredited laboratory, it was noticed that the test report did not bear NABL logo.

Thus the requirement of inspection by appropriate agency was not adhered to by the DDOs. Such acceptance of drugs without Inspection Note carried the risk of acceptance of substandard drugs by the hospitals.

This comment is also supported by the results of a survey conducted by the College of Defence Management wherein it was found that the clientele perceived the quality of medicines supplied in service hospitals to be poorer than those available in the market.

Incomplete Inspection

As per Defence Quality Assurance Organisation [Standing Orders (Technical)] of November 2001, whenever any sample or store is delivered to the Quality Assurance Officer for inspection/ test, Quality Assurance Agency should give clear cut verdict on the store. At SQAE (GS) Delhi we test checked 159 cases, received between July 2010 and July 2011, and noticed that in 46 cases reports were issued though the testing facility was not available, 14 cases were closed even without testing the samples and in 13 cases reports were finalised while the required test equipment was out of order.

During 2009-10 and 2010-11, CQA (M) Kanpur cleared 88 samples despite non-existence of test facilities and 38 samples were cleared without complete test for want of required certified Reference Standard and Working Standard from the supplier/manufacturer of the drugs.

CQA (M) stated that LP contracts were placed by user units in which DGQA was not the quality assurance agency, therefore, the firm could not be forced by the DGQA to extend firm's own test facilities or that of NABL accredited laboratories for tests left out. It agreed, however, that the tests could be enforced by the authority placing the orders. It further said that only the report on test parameters for which facilities were available at CQA (M) or were voluntarily extended by the firms was sent to the user units for appropriate action.

Given the serious deficiencies in inspection of stores against LP contracts as discussed above the inspection system prescribed for drugs was not effective in providing quality assurance for drugs supplied to the hospitals. This is an issue of significant concern since the bulk of procurement by the hospitals was being made within the limit of ₹ 1.5 lakh which was outside the ambit of quality checks by DGQA/NABL accredited laboratories. It is to be noted that acceptance of drugs in absence of test facilities carried the risk of substandard stores being made available to patients with little chance of replacement in case of poor quality detected later.

Delay in receipt of test reports

Prompt receipt of test report from CQA (M) is essential for the hospitals to ensure that unfit drugs are weeded out from the stock. Delay in this regard carries the risk of unfit drugs being administered to the patients.

We noticed that there were considerable delays in intimating the test results to the hospitals as discussed below.

(i) During 2006 to 2010, AFMSD Lucknow forwarded 893 samples for testing. Of these, 77 samples were found unfit for issue, 64 samples could not be tested for want of testing facility and in 19 cases the document was silent about the conduct of

test and the results thereof. Further scrutiny revealed that the time taken for communicating the results of 77 samples which were not fit for consumption, ranged from 49 to 456 days. Meanwhile, the depot issued the drugs to the dependent hospitals. Even in respect of 64 cases closed for want of testing facility, the time taken for communicating the closure ranged from 35 to 435 days.

(ii) Of the 453 samples sent by AFMSD Delhi for testing during the above said period, 328 medicines were found fit for consumption. Of the balance 125 samples, test reports for 91 cases were not received as of March 2011, which included 14 samples sent as early as in 2006-07. In 34 cases, the inspecting authority had declared the drugs unfit for consumption after a lapse of 3 to 14 months from the date of sending the samples. Out of the 34 medicines declared unfit, the entire stock of 17 medicines was issued to the indentors by the time test reports were received. Even after the receipt of test report declaring the medicines unfit, eight medicines were issued to the indentors.

(iii) AFMSD Mumbai had maintained no record of samples sent for post lab test until 07 March 2010. Subsequent to this date the depot sent 78 samples up to 25 May 2011. Out of these, 14 test reports declaring the items fit for consumption were received after a delay of one to three months from the date of sending of the samples. In respect of 64 samples, test reports were awaited as of August 2011.

The high rate of rejection (as high as 31 *per cent)* combined with widespread absence of post lab tests and inadequacy of facilities in DGQA's organisation indicated that the quality risks of locally procured medicines might be much higher. Under the prevailing arrangements, bulk of the procurements made by the hospitals is only visually inspected by the Board and as such there is no assurance to their quality.

Recommendation No 12

Immediate and effective steps are required to make the quality assurance system in AFMS more robust both for pre despatch inspection and post lab tests of drugs and consumables.

Chapter VI: Hospital Administration

Audit Objectives:
To assess whether:

- **Compliance with procedures relating to different aspects of hospital administration e.g. working of hospital infection control committee and Bio medical waste management was ensured.**

6.1 General

Hospital Administration is a specialised field which deals with each and every function of a hospital to ensure its smooth functioning for optimal clientele satisfaction.

The working of hospitals as regards creation of infrastructure, patient care practices and management of bio medical waste was studied in the hospitals covered under the Performance Audit and the findings are discussed in the succeeding paragraphs.

6.2 Creation of infrastructure

Delay in procurement of refrigerated centrifuge

In 1997, CH (AF) Bengaluru projected a case for procurement of refrigerated Centrifuge equipment for blood components. In October 2010, the CH (AF) raised a fresh proposal on AFMC Pune for its procurement. However, the equipment had not been purchased as of April 2011. In absence of the centrifuge equipment, the hospital had to procure blood components, single donor platelets and fresh frozen plasmas from trade. The case illustrates mismatch in procurement of equipment relating to handling of blood at CH (AF) for over a decade.

Deficient storage accommodation

The Scales of Accommodation for Defence Services provide for authorisation of storage accommodation for non-expendable medical stores, expendable stores, local purchase & other stores, cool room and cold storage room for the hospitals. The holding of accommodation as per the scales was examined in 24 hospitals. It was noticed that the deficiency in accommodation for cool room ranged from 11 to 100 *per cent*, for cold storage from 10 to 100 *per cent* and for overall medical storage

accommodation from 5 to 100 *per cent*. The hospitals where 100 *per cent* deficiencies exist are as under.

Table- 66: Deficiencies in storage accommodation*

Hospital	Cool room	Cold storage	Normal medical storage accdn
INHS Jeevanthi	✓	✓	
MH Shillong	✓	✓	
178 MH	✓	✓	✓
163 MH	✓	✓	
BH Barrackpore	✓		
MH Jabalpur	✓	✓	
MH Gaya	✓	✓	
MH Jaipur		✓	
404 Field Hospital		✓	
MH Jodhpur	✓		
MH Amritsar	✓	✓	
CH (NC) Udhampur	✓	✓	
6 AF Hospital	✓	✓	

**Data compiled from information furnished by hospitals*

As the purpose of cool room and cold storage accommodation is to preserve the life and quality of medical stores held, the deficiencies on this count carry the risk of deterioration of medical stores in storage. Evidently adequate attention was not given by AFMS to address these deficiencies over the years. Even when projects for modernization were undertaken, the deficiency was allowed to persist, as evidenced at INHS Ashwini, where the accommodation for medical stores was not included in the scope of the modernization project. A separate work for the same was sanctioned in February 2009 for ₹ 1.93 crore which is yet to be undertaken (March 2011).

DGAFMS and DGMS (Army) stated that no requirement on account of deficiency of storage accommodation was projected to them by hospitals but did not clarify as to why the deficiency was not monitored.

Deficiency of ambulances

Ambulances authorised in the PE of hospitals are in the category of 1 Ton (Ambulance 2 strecher), 2.5 Ton (Ambulance 4 strecher) or car light 250 kg. Based on annual provision review, the requirement for procurement of ambulances is arrived at by the DGOS. The availability of ambulances against authorization as of July 2008 to July 2011 in 111 Army hospitals was as follows:

Table- 67: Deficiencies in ambulances

As on	Ambulance 4 Stretcher			Ambulance 2 Stretcher		
	Unit Entitlement	Held (Fit + Repairable)	Deficiency/ (Percentage)	Unit Entitlement	Held (Fit + Repairable)	Deficiency/ (Percentage)
01.7.2008	2106	1088	1018 (48)	1178	648	530 (45)
01.7.2009	2129	1083	1046 (49)	1239	994	245 (20)
01.7.2010	2256	1001	1255 (56)	1265	1040	225 (18)
01.7.2011	2140	919	1221 (57)	1291	1079	212 (16)

While the deficiency of ambulances 2 stretcher decreased from 45 *per cent* to 16 *per cent,* the deficiency in respect of ambulances 4 stretcher increased from 48 *per cent* to 57 *per cent*. The increase in deficiency was mainly due to tardy pace of procurements and infirmities in JSQR[21] contained in RFP issued to vendors.

The holding of ambulances against authorisation was further examined in 23 hospitals. It was noticed only nine hospitals held ambulances as authorised, one was holding surplus while 13 hospitals were deficient. The deficiency was the highest at MH Jaipur (50 *per cent*) followed by MH Ambala (46 *per cent*), MH Jabalpur (40 *per cent*), MH Jodhpur (36 *per cent*), MH Gaya (33 *per cent*) and CH SC (29 *per cent*).

As availability of ambulance has a direct bearing on patient care, deficiencies in this regard needs to be redressed on priority.

Functioning of blood banks without valid licence

Human blood is covered under the definition of "Drugs" under section 2(b) of Drugs and Cosmetics Act. Hence it is imperative that blood banks be regulated under the Drugs and Cosmetics Act and licence required for operating a blood bank be obtained. Licencing of all blood banks became mandatory in 1993, based on availability of required infrastructure both in terms of manpower and equipment.

It was noticed that MH Amritsar, MH Jabalpur and MH Ambala operated blood banks in violation of this requirement (August 2011).

MH Jabalpur stated (May 2011) that renewal of licence was in process. MH Ambala said that it had applied for renewal in 2007 before expiry of the licence while MH Amritsar said that it had applied for licence in 2002.

In the absence of licence and its accompanying regulatory requirements, we could not ascertain whether the blood banks were operated according to approved standards.

Failure to raise Corps Blood Supply Units (CBSUs)

Blood being a precious and perishable commodity, its storage for longer period is not a viable proposition. During outbreak of hostilities, collection, storage and

[21] Joint Services Qualitative Requirement

transportation of fresh blood to forward areas has to be undertaken which require specialised equipment and establishment of cold chains. As Army did not have designated units to cater to the above activities, an Expert Committee on Overall Review and Rationalisation of Indian Army recommended in 1990 raising of Blood Supply Unit (BSU) at the scale of one for each of the Corps formations to fill the existing void. Establishment of three BSUs at three Corps formations was sanctioned by the Government between November 1994 and February 1997 which was subsequently merged with the Corps Field Hospitals.

As per recommendations of an Expert committee the DGMS (Army) proposed in January 2009, and later in September 2010, raising of Blood Supply Platoon for Field Hospitals of ten Corps Headquarters formations. The recommendation has not been accepted as on date and the void continues to exist.

6.3 Hospital Infection Control Committee (HICC)

Recognising the risks associated with hospital acquired infections (HAI), the DGMS (A) circulated guidelines in this regard to Medical Branch of all the Commands in July 2008. The control over risks was to be overseen by a Hospital Infection Control Committee (HICC). The guidelines, inter-alia, stipulated that the HICC consisting of senior functional specialists will meet every quarter and evaluate the surveillance and infection control policies and measures.

The DGMS observed that HICC's though constituted by most Service hospitals had largely remained only on paper. In three out of 24 hospitals, where information was furnished, HICC was non-functional during the period 2008-11 viz. CH WC Chandimandir, BH Barrackpore and MH Deolali. There were significant shortfalls in monitoring by HICC at most hospitals as the required number of meetings had not been conducted as shown below:

Table-68: Number of meetings of HICC*

Sl No	Name of Hospital	2008	2009	2010
1	BH Lucknow	2	3	NF Not Functional
2	166 MH	2	2	4
3	MH Ambala	1	1	2
4	CH(NC) Udampur	-		4
5	INHS Ashwini	1	3	4
6	MH Agra	3	4	NF
7	INHS Jeevanthi	1	1	NF
8	MH Alwar	3	3	3
9	MH Shillong	2	2	NF
10	CH SC Pune	-	4	3

**Data compiled from information furnished by hospitals*

Deficient functioning of HICC indicated that infection control policies and measures in the area of HAI had not been accorded due attention by most hospitals.

Recommendation No 13

Deficiencies in existing cold storage accommodation for drugs and holding of ambulances should be remedied within a reasonable time. The working of hospital infection control committee also needs to be strengthened.

The Ministry in response agreed with the recommendation and stated that remedial action would be taken.

6.4 Bio-Medical Waste

Implementation of Bio Medical Waste (BMW) guidelines in Armed Forces Health Care Establishments

The Hospital Waste Management system primarily consists of segregation of biomedical waste at source of generation followed by its collection, handling, storage, transportation, treatment and final disposal.

The Bio-Medical Waste (Management & Handling) Rules 1998 made it incumbent on the part of all Health Care Establishments (HCEs) to adopt Bio-Medical Waste (BMW) management by December 2002. DGAFMS was nominated as "Prescribed Authority" for authorizing and implementing the BMW Act in the Armed Forces Medical Services (AFMS) and the Central Pollution Control Board (CPCB) was mandated by law for monitoring the implementation of the Act.

Guidelines for management and handling of Bio Medical Wastes (BMW) in the armed forces, formulated by DGAFMS, were circulated by the DGMS (Army) to all the Command Hqrs in July 2003 with the request to disseminate it to all Health Care Establishments (HCE) for enforcement. Under these Rules, all HCEs generating BMW are required to apply to the prescribed authority for authorisation. The validity of authorisation for management and handling of BMW under these rules is three years, including an initial trial period of one year. Thereafter an application is required to be made by the HCE for renewal. All such subsequent authorizations are also valid for a period of three years.

Our scrutiny at DGAFMS revealed that of the 280 HCEs in Army 241 (87 *per cent*) did not hold valid authorisation as of March 2011. In the case of Air Force, 99 HCEs out of 162 (61 *per cent*) and, in Navy, 2 HCEs out of 10 (20 *per cent),* had not renewed their authorisation as of March 2011. Initial authorisation of these HCEs had expired long back. As valid authorisation under the Rules is not available to a large number of HCEs, their capacity to handle BMW in accordance with these rules is

suspect. As the renewal of authorisation is a statutory requirement, delay in this regard also carries risk of levy of penalty by the CPCB.

DGAFMS stated that all the HCEs had been instructed to get the authorisation renewed immediately.

Inspection by Central Pollution Control Board

On inspection of the facilities in 45 HCEs during 2004-2010, the CPCB highlighted serious shortcomings in implementation of BMW Act by DGAFMS which were circulated to various units and commands within the AFMS. Some common observations of CPCB were as under:

1. Facilities do not have valid consents under Water (Protection) Act 1974 and Air (Protection) Act 1981.
2. Records were not properly maintained for collection of waste, its movement to incinerator, disposal of incinerated ash, etc.
3. There were major leakages in incinerators in many HCEs and major emissions were being directly discharged in the surrounding environment.
4. There were many serious issues relating to collection and disposal of liquid waste including non provision of effluent treatment plant.
5. Microwave, plastic shredders were not functional and other equipment like Autoclave and incinerators were being run without testing and monitoring.

Despite these serious observations of CPCB, no time bound action plan had been framed by DGAFMS/DGMS to plug the lacunae in BMW management in AFMS.

Non adherence to the guidelines issued by the DGAFMS

Adherence to the guidelines for disposal of bio-medical waste formulated by DGAFMS was studied in 26 hospitals covered under the Performance Audit.

Segregation, generation, collection, storage and final disposal of BMW as per the guidelines were stated to be done by all hospitals. Except for four of these viz. 178 MH, 166 MH, MH Amritsar and MH Deolali no other hospital could furnish the figures of BMW generated and disposed of during the period of audit.

Sixteen out of 26 hospitals had not conducted the meetings of BMW management Committee in 2010-11.

As per the guidelines, hospitals were required to conduct trainings for their Doctors, Nurses, Paramedical staff and waste handlers in the area of BMW management at least twice a year. Our scrutiny revealed that 13 out of 26 hospitals had not conducted the training in 2010-11 while a majority had not maintained details in regard to the trainings conducted such as periodicity of trainings and the number of persons trained.

Whereas incinerators for disposal of hospital waste were held by 22 hospitals, the downtime of the equipment ranged from 5 to 203 days during the period 2008-09 to 2010-11. Downtime was quite substantial in CH WC Chandimandir, BH Delhi Cantt, MH Amritsar and 178 MH.

Effluent treatment plant was not available even in Command, Speciality and Referral hospitals.

Deficiency in critical equipment required for bio-medical waste management

Auto Clave

The guidelines on bio-medical waste issued by the DGAFMS in February 2008 provide holding of the equipment in connection with waste management. The deficiency of equipment was assessed by a board of officers in July 2010 as under:

Table-69: Details of equipment held against authorisation

Equipment	Authorised, as per scales	Held	Deficiency	Percentage of Deficiency	Remarks
Waste Steriliser	38	2	37*	97	*01 for AFMC
Microwave	47	33	15*	32	*01 for AFMC
Plastic Shredder	196	45	152* **	78	*01 for AFMC ** MH Kota and MH Jaipur have 3 shredder each
Auto Clave	120	31	90*	75	*01 for AFMC
Incinerator	52	201	(-)149	(-)287	Surplus holding

Waste Steriliser

It can be seen that the deficiency is 97 *per cent* as regards waste steriliser, 32 *per cent* of microwave, 78 *per cent* of plastic shredder and 75 *per cent* of auto clave.

The deficiencies against authorization would indicate that the disposal of waste by the hospitals is being made without disinfecting, sterilizing and shredding them.

Incinerator

Recommendation No 14

Urgent steps need to be taken by DGAFMS to ensure adherence to the Bio-Medical Waste (Management & Handling) Rules 1998 by Health Care Establishments. The management of bio-medical waste may be placed on a firm footing by way of regular monitoring, making good the deficiency in holding of critical equipment required for treatment of waste in a reasonable time frame, maintenance of documents reflecting their generation and disposal and setting right the shortfalls in their management, as observed by the CPCB.

The Ministry in their response stated that all observations made by CPCB were sent to the hospitals concerned and corrective action taken was reported to CPCB. Advisories had been issued to the Service Medical Directorates requesting strict adherence to the monitoring and supervision duties specified at each level. Close liaison is maintained to ensure conduct of proper inspection visits by CPCB and their follow-up. Current information was available regarding amount of waste generated, equipment held and date of issue and validity of authorisation. This has enabled close monitoring at the central level.

The Ministry's response is general in nature and it does not address the issue of shortage of bio-medical waste equipment and the steps it proposed to take to reduce their downtime and to make waste management efficient and compliant to the standards prescribed.

Chapter VII: Ex-Servicemen Contributory Health Scheme (ECHS)

Audit Objective
To assess whether:
- **Infrastructure as planned was created.**
- **Norms governing manpower and availability of medical equipment were adhered to; and**
- **Satisfactory supply of drugs was ensured.**

7.1 About ECHS

Ministry of Defence sanctioned, in December 2002, a health care scheme, namely "Ex-Servicemen Contributory Health Scheme (ECHS)" to cater for medicare of all ex-servicemen in receipt of pension, including disability and family pension, as also their dependents including wife/husband, legitimate children and wholly dependent parents. The scheme came into effect from 1 April 2003.

The scheme envisages medicare by establishing new Armed Forces Polyclinics and Augmented Armed Forces Clinics at 227 stations spread across the country with a view to reducing the work load in treatment of ex-servicemen/dependents on Service hospitals.

The total membership under the scheme as on 31 March 2011 was 11,58,559 and the beneficiaries were 36,59,263. The contribution received from members for the period 2006-07 to 2010-11 was ₹258.57 crore.

The workload of ex-servicemen (ESM) and their dependents with reference to OPD and admissions in service hospitals during the year 2008 and 2009 was as under:

Table-70: Workload of ex-servicemen & their dependents

	OPD attendance		Admissions	
Services	**2008**	**2009**	**2008**	**2009**
Army	22,58,464	21,21,962	1,22,460	1,16,547
Navy	1,22,047	84,027	3,893	6,402
Air Force	1,77,152	1,77,622	2,962	5,609

The overall expenditure under revenue and capital heads during last five years amounted to ₹3390.44 crore and ₹46.17 crore respectively as per details given below:

Table-71: Allotment and expenditure under revenue head

(₹in crore)

Code Head	2006-07		2007-08		2008-09		2009-10		2010-11	
	Allotment	Expenditure	Allotment	Expenditure	Allotment	Expenditure	Allotment	Expenditure	Allotment	Expenditure
Pay & Allowance	23.40	23.50	25.92	26.09	27.31	27.41	38.90	38.94	59.00	45.95
Medicines	104.99	106.37	185.69	189.64	236.93	239.80	305.00	307.60	350.00	346.50
Medical Treatment	188.49	187.19	263.11	260.85	368.76	365.29	539.60	540.40	626.54	657.34
Others	7.26	4.54	15.19	6.24	7.14	6.25	6.42	5.02	25.50	5.52
Total	324.14	321.60	489.91	482.82	640.14	638.75	889.92	891.96	1061.04	1055.31

Table-72: Allotment and expenditure under capital head

(₹in crore)

Code Head	2006-07		2007-08		2008-09		2009-10		2010-11	
	Allotment	Expenditure	Allotment	Expenditure	Allotment	Expenditure	Allotment	Expenditure	Allotment	Expenditure
Purchase of Land	0.20	0.07	0.10	0.64	1.50	1.42	0.60	0.59	1.30	0.24
Construction of building	7.00	4.77	5.00	5.86	6.70	4.95	4.70	4.13	2.00	2.21
Med equipment	16.00	15.38	3.00	3.15	1.30	1.20	1.10	1.19	0.30	0.37
Total	**23.20**	**20.22**	**8.10**	**9.65**	**9.50**	**7.57**	**6.40**	**5.91**	**3.60**	**2.82**
Funds surrendered	20.80		48.90		50.50		30.60		33.40	
Total funds available	44.00		57.00		60.00		37.00		37.00	

Working arrangements between the Service hospitals and ECHS polyclinics

The Scheme stipulates the working arrangements between the Service hospitals and ECHS polyclinics to be as under:-

(a) Subject to load of authorised personnel, all facilities in Military, Naval and Air Force hospitals in the same station or the nearest or any other station will be utilised;

(b) Subject to existing facilities and load, referrals will be permitted for consultation, diagnostic tests and treatment at empanelled medical centres/ polyclinics/ hospitals/nursing homes;

(c) Additional requirement of medicines/drugs/expendables will be provided to Armed Forces clinics/hospitals through the scheme; and

(d) Free out-patient treatment will be made available through Augmented Armed Forces Clinics and Armed Forces Polyclinics.

Reimbursement

Under the scheme, reimbursements for costs of medicines, etc. are provided to the patients where services are obtained from the empanelled Diagnostic Centres/Nursing Homes/Hospitals. In case of emergency, the beneficiary can report to the nearest Government hospital/ empanelled hospital for treatment under the scheme, the cost of which will be fully reimbursed. In case of accident and trauma cases, where time is crucial for life saving, an ESM may go to any Nursing Home/Hospital; ex-post-facto

sanction for reimbursement for such cases will be accorded by the Headquarters at Delhi.

Management structure of the scheme

The scheme was to be implemented by a project organisation with a three tier structure, comprising of a Headquarters located at Delhi and 12 Regional Centres to oversee the functioning of 227 polyclinics. Army, Navy and Air Force were to provide manpower to the administrative organisation at HQ and Regional Centres from within their existing resources. The polyclinics to be set up and those set up till 31 March 2011 under the Scheme are as under:-

Table- 73: Details of polyclinics

Type of Station	Polyclinics to be set up	Polyclinics set up
Military Stations	104	106
Non Military Stations	123	121

The OPD attendance of ESM beneficiaries at ECHS polyclinics during 2006-07 to 2009-10 has consistently increased as shown below:

Table- 74: Patients seen at ECHS and referred to Service hospitals

Year	Total patients seen at ECHS	Patients referred to Service hospitals
2006-07	4200102	140575
2007-08	6496115	341345
2008-09	7756531	319623
2009-10	7842728	318416

It can be seen that the ECHS, which was set up as a new scheme, has gained popularity as evident from the steady increase in patients' attendance, thereby underlining the need to further strengthen and augment it with the entire necessary infrastructure and reduce referrals to Service Hospitals.

7.2 Creation of infrastructure

As per the scheme sanctioned, the infrastructure for 104 clinics in military stations was to be created within four years and for 123 polyclinics in non military stations within five years from the launch of the scheme. The infrastructure was to be completed at the earliest but not later than March 2008. In execution of the scheme the requirement of polyclinics was, however, revised to 106 in military stations and 121 in non-military stations. The scheme also provided that in respect of 121 polyclinics suitable accommodation for establishing these polyclinics will be rented till such time as the new buildings for these were constructed. As of February 2011, approximately 114 polyclinics were operating out of rented or re-appropriated buildings.

We observed that land and/or building for 171 polyclinics (106 military and 65 non military) was available and in respect of the balance 56 polyclinics (46 *per cent*) in non-military stations acquisition of land was in progress.

Construction of building was complete in respect of 95 out of 106 military stations where land had been acquired. In respect of 6 stations, construction was in progress while in the remaining 5 stations construction was yet to commence. Of the 65 non-military stations where polyclinics were to be constructed, in 47 stations construction had not commenced. This was despite the fact that money was available for undertaking the above activities under the capital outlay each year but was eventually surrendered as depicted in Table 72.

MD ECHS stated that in order to expedite creation of infrastructure at non military stations, a new comprehensive policy on hiring of buildings, acquisition of land and construction of polyclinic buildings was under examination. Sanction was also being sought to engage private/Government agencies for construction of polyclinics at non military stations where MES cover did not exist.

Thus, while the scheme has nearly met the objective of creating infrastructure in military stations, in respect of 85 *per cent* of the non-military stations, the infrastructure was yet to be established.

Hiring of accommodation for polyclinics

The Ministry while sanctioning the scheme had stipulated the area of accommodation to be hired for different categories of polyclinics as under:-

Table-75: Authorisation of built up area

Category of polyclinic	Built up area authorised (in Sq ft)
A	5000
B	4000
C	2500
D	2000

As per records at MD ECHS, 92 polyclinics were functioning in hired accommodation. Data relating to area hired for polyclinics revealed that 41 polyclinics were functioning in prescribed area and 21 polyclinics were functioning in lesser area. We saw that nine polyclinics had deficient area of over 30 *per cent* and some clinics like Hoshiarpur, Pauri Gadhwal and Sonepat had more than 60 *per cent* deficient accommodation. For the balance 30 polyclinics the details of available area was not available.

While accepting the deficiency, MD ECHS clarified that critical deficiency of plinth area is mostly at rural/semi urban areas where large buildings were not available for hiring. All out efforts were being made to acquire land and speed up the construction of polyclinics. The entire process of hiring the buildings for polyclinics and acquisition of land was being simplified and strengthened for creation and upgradation of infrastructure.

7.3 Deficiency in manpower

The manpower for polyclinics at military and non-military stations was to be met through appointment on contractual basis. The norm governing the manpower to the four categories of polyclinics is as under:

Table- 76: Authorisation of manpower

Sl. No.	Category	Mil Station				Non Mil Station			
		A	B	C	D	A	B	C	D
1	Medical officer	2	2	1	1	2	2	2	2
2	Medical Specialist	1	1	-	-	2	2	1	1
3	Dental officer	1	1	1	1	2	2	1	1
4	Gynecologist	-	-	-	-	1	1	-	-
5	Officer in charge (non medical)	1	1	1	1	1	1	1	1
6	Nursing Assistant/Nurse	3	2	1	1	3	3	2	2
7	Lab assistant	2	3	1	1	2	2	1	1
8	Dental hygienist	1	1	-	-	1	1	-	-
9	Female attendant	1	1	1	1	1	1	1	1
10	Receptionist/Caretaker	-	-	-	-	1	1	-	-

The scheme sanctioned in December 2002 did not provide Radiographer and Physiotherapist. In September 2003, this was corrected by including them in the category of Nursing Assistants.

Our scrutiny revealed that the manpower of medical officers actually held at the polyclinics during the period 2006-07 to 2010-11 was deficient when compared to the total authorisation as shown below.

Table-77: Posted strength of manpower with reference to authorisation

Year	Medical Officer			Medical Specialist			Gynecologist			Percentage of deficiencies		
	Auth	Posted	Def.	Auth	Posted	Def.	Auth	Posted	Def.	MO	MS	Gynec
2006-07	375	306	69	176	73	103	28	11	17	18	59	61
2007-08	375	322	53	176	96	80	28	16	12	14	45	43
2008-09	375	313	62	177	103	74	29	19	10	17	42	34
2009-10	375	350	25	177	136	41	29	19	10	7	23	34
2010-11	375	348	27	177	130	47	29	20	9	7	27	31

The deficiency in each of the above categories had reduced over the period from 2006-07 to 2010-11. However, even though the scheme was in its eighth year of operation, the deficiency in respect of Medical Specialist and Gynecologist was as

high as 27 *per cent* and 31 *per cent* as of March 2011. The deficiency in respect of all categories of officers was more in the polyclinics located in non-military stations than in the military stations, adversely affecting the patient care as indicated below:-

Table- 78: Deficiency of manpower at military and non-military stations

Station	Med Officers			Med Specialists			Gynecologist		
	Auth.	Posted	Def.	Auth.	Posted	Def.	Auth.	Posted	Def.
Mil Station	132	127	5	27	24	3	0	0	-
Non Mil Station	243	221	22	150	106	44	29	20	9
Total	375	348	27	177	130	47	29	20	9

While accepting the non-availability of Medical Specialists and Gynecologists as a matter of concern, MD ECHS clarified that existence of vacancies is due to lesser contractual remuneration compared to that of the Central Government Health Scheme and that the matter was under examination at the Ministry. It was also stated that the deficiency of Medical Officers/ Medical Specialists/ Gynecologists in rural/semi urban areas was a malaise prevalent all over the country which could only be addressed with special compensatory allowance as an incentive for serving in rural/remote areas.

Recommendation No 15

Effective steps may be taken to improve the availability of infrastructure and manpower, particularly in non-military stations, to ensure manning of equipment as well as for providing adequate patient care.

While agreeing with the recommendation, the Ministry stated (July 2012) that necessary action for carrying out remedial action was under consideration.

7.4 Equipment

Procurement of equipment without ensuring manpower

Government sanction provided for medical equipment to polyclinics as under:

Table- 79: Authorisation of equipment

Sl. No.	Medical Equipment	Military Station				Non-military Station			
		A	B	C	D	A	B	C	D
1	X-ray machine	1	1	1	1	1	1	1	1
2	Ultrasound	1	1	1	1	1	1	1	1
3	Lab Autoanalyser	1	1	1	1	1	1	1	1
4	Dental equipment set (including chair)	1	1	1	1	2	2	1	1
5	Physiotherapy (standard set)	1	1	1	1	1	1	1	1
6	ECG machine	1	1	1	1	1	1	1	1
7	Monitor Defibrillator	1	1	-	-	1	1	-	-
8	Ambulances	1	1	1	1	1	1	1	1

The table shows that whereas X-ray machines and Ultrasound machines were provisioned in all the 227 polyclinics, the radiographers required to operate them had not been sanctioned for 79 polyclinics in C & D categories. In the polyclinics located at Lucknow, Chandimandir, Jabalpur and Shillong where only one Nursing Assistant (inclusive of radiographer) was authorized, X-ray machines were not utilized for want of manpower and therefore transferred to Military hospitals. At polyclinic Agra the machine was idle due to non availability of a radiographer.

The deficiency in other equipment such as Microscope complete, Wax bath, Instrument table, Gynec examination table was also observed at the polyclinics at Chandigarh, Ropar, Kapurthala, Kolhapur, Salem, Tirunelveli and Bhubaneswar.

MD ECHS stated that case for authorisation of deficient manpower was under consideration.

Downtime of medical equipment

Scrutiny of records at MD ECHS revealed that 36 equipment remained un-serviceable at 18 polyclinics intermittently during 2008-09 and 2009-10 for periods ranging from 1 to 36 months in polyclinics for want of accessories and repairs as detailed below:

Table- 80: Downtime of equipment

Equipment not functional	2008-09	2009-10	Name of equipment
Up to 3 months	5	14	(9)Dental chairs, (7) X-ray machines, ECG Machine, Ultrasound machine and Auto analyser.
4 to 6 months	1	3	(3)Dental Chairs and X Ray machine.
7 to 9 months	3	1	X Ray, (2) Dental Chairs and ECG Machine.
10 to 12 months	-	-	
> 12 months	5	4	(4)Dental Chairs, (2) X-ray machines, (2) Air compressor and ECG Machine.
Total	14	22	

The downtime exceeding 12 months in 2008-09 related to one equipment each at the polyclinics at Shahjahanpur, Jaipur, Agartala and two at Darjeeling. For 2009-10, of the four equipment that had downtime of over 12 months, one was at Barmer and three at Bengdubi.

Non-functional of equipment

As of March 2011, 18 equipment (seven X-ray machines, nine Dental chairs and two Semi auto analyzers) were non functional since January 2010 at 17 polyclinics located at non military stations. MD ECHS in reply stated that case regarding non-functioning of the equipment had been taken up with the firms and DGAFMS. SOP for repair and maintenance of medical equipment was stated to be under revision.

The serviceability of the equipment at polyclinics could not be verified as log books required to be maintained for all the non-expendable medical stores costing ₹10,000 and above were not maintained. As a result quantum of actual downtime and unserviceability of equipment could not be ascertained.

Regarding downtime/non-functioning of equipment, MD ECHS stated that necessary corrective measures were being examined in consultation with DGAFMS.

Monitoring of availability of drugs in polyclinics

Directorate General Financial Planning (DGFP) (AHQ) allots funds to MD ECHS who in turn issues the funds to DGAFMS for allotment to AFMSDs and respective hospitals for local purchase of drugs and consumables for the polyclinics.

In September 2007, MD ECHS issued instructions to all Regional Centres to obtain monthly report on availability of drugs and consumable from polyclinics in their jurisdiction and forward a quarterly report to the Headquarters.

We, however, observed that instructions issued by MD ECHS were not adhered to by the Regional Centres as three out of 13 Regional Centers, namely, Danapur, Delhi and Jabalpur, never submitted the reports. The reports, where rendered, were irregular**.** In respect of other 10 Regional Centres, only 45 out of 153 reports due were rendered i.e. 29 *per cent*.

The reports from Regional Centres of Kolkata and Pune indicated that the lead time taken for materialisation of supplies from the AFMSDs was far more when compared to lead time allowed under DGLP. The lead time in certain cases was even up to six months to one year indicating low priority accorded to ECHS. Moreover, there was no evidence of any tangible action taken to bring down the lead time.

In reply, it was stated that the feedback system took time to develop depending on various problems faced. It was also stated that time taken for procurement of medicines is as per the existing procurement procedure and instructions were being issued to render the report.

Thus the Management Information system designed to assess availability of drugs in polyclinics is defunct and needs to be made operative at all Regional Centres to ensure proper monitoring by MD ECHS given the fact that materialisation of supplies from AFMSD to ECHS needs to improve.

Low compliance of medical stores

The ECHS Polyclinics are dependent on AFMSDs as well as nearest service hospitals for drawal of medical stores. In August 2009, the DGAFMS circulated list of 67 drugs which were identified as ‘vital’ & ‘essential’ and advised all the ECHS Polyclinics to ensure maximum availability of these medicines at all times.

The AFMSD Mumbai, however, did not hold stock of 35 vital and essential drugs (52 *per cent*) and stock of nine drugs (13 *per cent*) was less than the MMF. The AFMSD Delhi Cantt did not hold stock of 10 essential drugs (15 *per cent*) and for 24 drugs (36 *per cent*) the stock held was less than MMF.

Thus the depots were unable to provide the vital and essential drugs to ECHS polyclinics affecting the medicare to ESM.

Besides the essential category of drugs, the compliance rate of the drugs in general was examined at ECHS polyclinics located at military and non-military stations during 2006-07 to 2010-11. In 10 military stations the compliance rate ranged from 17 *per cent* (Ambala) to 84 *per cent* (Mumbai). In 20 non-military stations it ranged from 11 *per cent* (Ara) to 76 *per cent* (Fatehpur).

Accepting the non availability of drugs as a matter of concern, MD ECHS stated that various measures to obviate the same were under examination. The Regional Centres were also stated to have been instructed to obtain monthly report on availability of drugs etc., and to apprise the Central organisation quarterly.

Recommendation No 16

Availability of drugs in ECHS polyclinics should be improved at the earliest. The management tool devised to ascertain availability of drugs in polyclinics should be strengthened to ensure correct reporting.

Agreeing to the recommendations, the Ministry stated (July 2012) that all-out efforts were being made to ensure that necessary drugs are available.

7.5 Inadequacy of empanelled hospitals

ESM and their dependents requiring hospital admission are normally referred to Service hospitals and, in case of non-availability of beds/ facilities in Service hospitals, to empanelled civil hospitals for treatment. For this purpose, a Board of Officers at a station scrutinizes the applications received from the hospitals in a station for empanelment. Evaluation of hospitals is then carried out by the Board as regards their reputation, accessibility, availability of professional services and reasonability of rates before making recommendation. The hospitals are then recommended to the Empowered Committee for approval under the Chairmanship of Additional Secretary in the Ministry. On approval, the hospitals are initially empanelled for a period of two years generally and agreements are then signed by the Station HQ with the hospitals to provide for treatment to the ESM.

The Ministry had approved empanelment of 1054 hospitals till March 2011 whereas valid agreement was available with only 507 hospitals. In the balance 547 hospitals, agreements had expired and not renewed. The position of valid existing agreements

and those expired but not renewed as of March 2011 are as under:

Table- 81: Position of empanelled hospitals

Total hospitals approved for empanelment*		**Hospitals with valid agreements as on 31/03/2011****		**Hospitals where agreements had become invalid/expired as on 31/03/2011*** (*per cent* in bracket)**	
Military stations	Non-military stations	Military stations	Non-military stations	Military stations	Non-military stations
601	312	276	157	325 (54 *per cent*)	155 (50 *per cent*)

**In the balance 141 hospitals, categorization as military or non-military station is not known as these empanelled hospitals are located at places other than military/ non-military policlinics.*
*** The remaining 74 hospitals have been empanelled at other than the polyclinic stations.*
****The remaining 67 hospitals pertain to other than polyclinic stations*

We observed that validity of agreements existed for 276 hospitals at 57 military stations and 157 hospitals at 60 non-military stations. We observed that as of March 2011 at 15 non-military stations out of 75 and an equal number out of 72 military stations where hospitals had been approved for empanelment by the Ministry, agreements with the empanelled hospitals had not been renewed. While in military stations the beneficiaries have the option of treatment in service hospital, in non-military stations the beneficiaries have to mostly rely on the empanelled hospital for treatment. Thus, in the absence of empanelled hospitals, the ESM in those non-military stations were put to the inconvenience of undertaking long journeys to the nearest Service hospitals for treatment.

At 18 'C' and 'D' polyclinic stations, having ESM dependency between 2500 and 10000, the number of hospitals empanelled was found more and in two cases as high as 15 (Lucknow and Nagpur) whereas at 18 'A' and 'B' polyclinic stations, where ESM dependency is 10000 and above, the availability of empanelled hospitals was low ranging between one and three**.**

MD ECHS stated that, in February 2011, ECHS had signed Memorandum of Understanding (MoU) with Quality Council of India (QCI), National Accreditation for Board of Hospitals (NABH) to further reduce the time taken for empanelment.

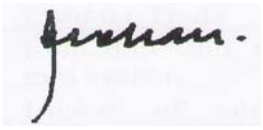
Thus non-availability of empanelled hospitals at non-military stations as well as availability of fewer numbers of empanelled hospitals for population of 10,000 and above would restrict the availability of treatment to ESM undermining the objective of the scheme. In other words the deficiency in availability of empanelled hospitals would restrict the accessibility of ESM.

7.6 Non-utilisation of Management Information System Software (MIS)

The MD ECHS concluded a contract in January 2004 for installation of Information Technology infrastructure for smart cards along with MIS software at ECHS HQ, Regional Centres and Polyclinics. Our scrutiny revealed that the infrastructure created in June 2006 was being used only for registration and referral of patients, though the MIS software had 32 modules. Thirty of the thirty two modules were not used due to non- availability of trained manpower. Thus, full benefits expected from the computerisation were not derived.

While agreeing with the inadequacy of the existing in-house efforts for automation, MD ECHS clarified that to overcome this deficiency a case for complete automation of ECHS with the assistance of National Institute for Smart Government was under finalization. In addition, an on-line bill processing system with the assistance of a Bill Processing Agency (BPA) viz. UTI-ITSL was being launched with effect from April 2012 to maintain the MIS of the scheme.

The Ministry stated (July 2012) that a proposal to augment and strengthen the automation process of ECHS was under finalisation.



New Delhi
Dated: 26 November 2012

(Venkatesh Mohan)
Director General of Audit
Defence Services

Countersigned

New Delhi
Dated: 26 November 2012

(Vinod Rai)
Comptroller and Auditor General of India