Chapter 5 ⟹ Hospital Administration

Audit Objective 4

To see whether the hospital administration including maintenance of data on patient care, treatment facilities and waste management was efficient.

Sound administration is the key in achieving goals of an organization. Hospital Administration is concerned with planning, organizing, staffing, coordinating, controlling and evaluating health services for the community to provide maximum patient care of superior quality at low cost.

This chapter, inter alia, highlights the status of implementation of Hospital Management Information System, documentation of medical records of patients, availability of treatment facilities, implementation of National Health Programmes, waste management etc.

5.1 Hospital Management Information System

Hospital Management Information System (HMIS) was conceived to keep records of the Medical History of patients at the Hospitals. The objectives of implementation of HMIS were to cover patient registration, issue of sick certificates, test reports of pathology, accountal / availability of medicines in pharmacy/medical store, scheduling of doctors / nurses, reports of periodical medical examination, operation theatre scheduling, patient billing etc. in addition to reduction of waiting time for patients at hospitals.

The work of development and implementation of HMIS across Indian Railways was entrusted to SER in 1992-93 with a sanction of ₹ 25 lakh for procurement of hardware, software, data based licenses and other infrastructure. In 1996 and 2004, an amount of ₹ 12 lakh and ₹ 10 lakh respectively was sanctioned for upgradation of the system and procurement of

hardware and software. However, only 3 modules relating to patient registration and radiology out of planned 13 modules started functioning from 2002 and the position remained same till September 2013.

Subsequently in 2005-06, Railway Board entrusted the project to WR for development and implementation in co-ordination with Centre for Railway Information System (CRIS). A provision of ₹ 1.5 crore was made in Pink Book of 2006-07 towards implementation of HMIS with a project cost of ₹ 2.98 crore. The Memorandum of Understanding (MoU) to be signed in June 2007 was delayed because of the dispute regarding usage of network of FOIS or RAILNET and the same was signed in January 2011. The revised estimate of ₹ 2.62 crore sent by CRIS in September 2012 was found not justifiable by WR and the matter was referred to Railway Board in April 2013. A committee of Executive Directors at Railway Board level was formed in December 2013 to suggest a suitable HMIS for adoption by all the ZRs. No further development took place till July 2014.

Scrutiny of records relating to the status of the implementation of HMIS in selected hospitals revealed that even after a lapse of over two decades since initiation of the project, only three modules were implemented (July 2014) after incurring expenditure of ₹ 66 lakh. Some local applications were, however, developed and operational in seven hospitals in six ZRs[72] and hospital at RCF/Kapurthala. ***(Appendix XI)***

Railway Board stated (July 2014) that a proposal had been initiated by Health Directorate to install HMIS in all hospitals of Indian Railways. However, the fact remained that there was lack of adequate initiative at the Railway Board level in implementing HMIS across Zonal Railways and no time bound action plan was also drawn to expedite its implementation.

5.2 Documentation

Documentation of the beneficiary's identity and patient's health records ensures delivery of better health care at optimal cost. It promotes accurate,

[72] ***NR, SCR, ECR, NER, SECR and ER***

clear, complete patients diagnosis, treatment and progress leading to delivery of quality health care.

5.2.1 Beneficiary data

Periodical updating of beneficiary data is necessary for budgeting, manpower planning and infrastructure development of the hospitals.

Scrutiny of the records relating to maintenance of beneficiary data in selected hospitals revealed that the method of calculating the number of beneficiaries was not uniform across ZRs. The quantum of beneficiaries was calculated by multiplying the number of serving employees of the respective jurisdiction with a factor of four or five as the number of family members and for retired employees the multiplying factor was two or three. No rationale for adopting the variable approaches to ascertain the actual number of beneficiaries could be traced from the records of the Railway Administration. Periodical updating of beneficiary data was not carried in any hospital/health unit. The number of beneficiaries was almost same at 60 lakhs in IR during the period 2008-12. The number of beneficiaries, however, increased to 62.74 lakhs during 2012-13.

Railway Board stated (July 2014) that regular audit of in-patient and out-patient were being undertaken at divisional and hospital-in-charge level. The reply of the Railway Board was not acceptable as the data related to patients were not considered for planning infrastructure development, manpower requirement etc. Moreover, the maintenance of data for the number of patients treated cannot suffice the need of comprehensive data of actual number of beneficiaries as it acts as an effective tool for formulation of budget for the medical department. The reply of the Railway Board did not address the basis of the calculation of the number of beneficiaries and their periodical updating.

5.2.2 Medical Identity Cards

Para 626 of Indian Railway Medical Manual (IRMM) provides that Identity Cards are necessary for availing of medical facilities at Railway Hospitals.

The employees are issued Medical Identity Card (MIC) either by the Personnel Department or by the concerned departments of the employee. Identity Cards are registered with the Railway Hospital by recording the details of the beneficiaries in Medical Identity Card Register.

Scrutiny of records relating to issue and registration of MICs revealed the following:

I. Medical Identity Cards were not periodically updated in 11 hospitals and 10 Health Units over three ZRs[73] though the practice of obtaining updated family declarations from the employees every five years is in practice for issue of Railway passes; ***(Appendix XI)***

II. In all Zonal Railways (excluding SWR, ECoR, NEFR and WR), Medical Identity Cards do not bear the photographs of all the beneficiaries except that of serving employee himself/herself. The risk of extending railway medical facility to unauthorized persons further increases as the treatment in railway hospitals were also being permitted based on railway passes and pay slips;

III. Periodical census of beneficiaries was neither taken up nor was reconciliation done between the number of MICs issued by the department of the employees and those registered with Medical Department.

Railway Board stated (July 2014) that Personnel Department issues Medical Identity Cards which are being utilized by the Medical Department to identify the beneficiaries. In this connection, it is stated Medical department should provide medical facilities to genuine beneficiaries and the same could not be ensured when the medical facilities were provided on the basis of railway passes or pay slips or Medical Identity Cards that did not bear the photographs of all the beneficiaries as observed in test check.

[73] ***SCR, CR and NWR***

5.2.3 Medical History Folders

Maintenance of Medical History Folders (MHFs) of the patients treated in hospitals is considered as a good practice to obtain instant feedback on the past ailments of a person. Apart from helping in better diagnosis, MHFs can be helpful in saving cost of treatment by obviating unnecessary tests and wastage of medicines.

Scrutiny of records relating to maintenance of MHFs in selected hospitals of IR revealed the following:

I. Medical History Folders were not maintained in 24 hospitals and 40 HUs over seven ZRs[74] including HUs attached to two PUs[75];

(Appendix XI)

II. In hospitals of DMW/PTA and SCR, MHFs were being maintained manually for in-patients only;

III. In Central Hospital/NR, MHFs were not maintained for OPD patients except for all chronic patients and RELHS beneficiaries[76];

IV. In NCR and SR (except CH/Perambur), MHFs were maintained manually for all chronic patients and RELHS beneficiaries;

V. Though MHFs were maintained manually in NFR, there was no provision of linking them with subsequent visit or admission of the patient; and

VI. In SECR, the medical history of the out-patient was maintained in the Medical Card itself and for in-patients; the same was being maintained at the Hospital.

Railway Board stated (July 2014) that all medical records of the patients would be available online after implementation of HMIS. However, the fact remained that even after a lapse of over two decades, HMIS could not be implemented (July 2014).

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[74] ***CR, SWR, NWR,WCR, SER,WR (except in Divisional Hospitals/ Ratlam) and MR***

[75] ***CLW/Chittaranjan and DLW/Varanasi***

[76] ***RELHS refers to Retired Employees Liberalized Health Scheme which includes retired railways employees eligible for railway medical facilities.***

Thus, in the absence of MHFs, treatment of indoor and outdoor patients was an independent exercise and the good practice of maintenance of MHFs to provide quality medical services at minimal cost is lost.

5.3 Treatment Facilities

Medical facilities to railway beneficiaries are provided both in railway and in non railway hospitals. 80 *per cent* in secondary level health care and five *per cent* in tertiary level care is provided by the existing railway hospitals. In case of higher secondary and tertiary medical care, railway patients are referred to non railway hospitals.

Bed Occupancy Ratio (BOR)[77] is a vital parameter to assess the need of infrastructure development of hospital to provide requisite medical facilities to beneficiaries.

Railway Board stated (July 2014) that BOR of a general hospital should be between 70 and 80 *per cent.* A test check in Audit, however, revealed that out of 22 Central Hospitals[78], BOR ranged between 40 and 46 *per cent* in four hospitals[79]. Similarly, out of 41 Divisional / Sub-Divisional Hospitals test checked, in sixteen[80] hospitals, BOR ranged between 5 and 48 *per cent;*

5.3.1 Treatment in non railway hospitals

Medical department of Zonal Railways have empanelled some Government and Private hospitals for providing medical care which are not available in their existing hospitals. Railway Board from time to time has laid down guidelines for empanelment of private hospitals. As per extant instructions, the private hospitals are empanelled with the approval of Railway Board initially and renewed for next five years by the concerned General Manager of the Zonal Railways.

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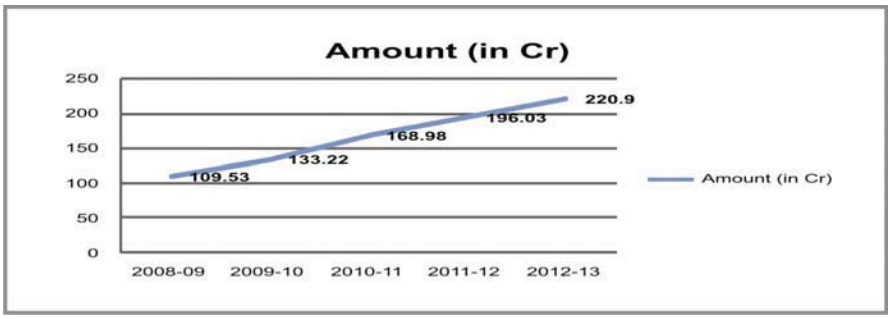
[77] Cumulative in patient x 100 / No of beds x days
[78] Includes 17 Central Hospitals and five hospitals of PUs
[79] ECoR, NCR, CLW/Chittaranjan and RWF/Yelahanka.
[80] Igatpuri and Manmad (CR), Gaya (ECR) KUR (ECoR), Andal (ER), Jalpaiguri, New Tinsukia and Lumding of NEFR, Sahadol and Nainpur of SECR, ADA and BNDM of SER, Palghat, Villupuram and Erode of SR and Itarsi (WCR).

Scrutiny of records relating to empanelment of hospitals and referring of patients for treatment in recognized non railway hospitals revealed the following:

I. The referral expenditure[81] in IR during 2008-13 was ₹ 1146 crore for treatment of 2.96 lakh patients in non railway recognized hospitals. The referral expenditure on reimbursement to non railway hospitals had increased from ₹ 170.57 crore during 2008-09 to ₹ 304.16 crore during 2012-13 (78.32 *per cent*). In eight ZRs[82], the expenditure exceeded IR average of 13.79 *per cent* of the total medical budget with the highest being 32.21 *per cent* in SCR during 2012-13.

II. The referral expenditure of all selected hospitals of Indian Railways increased from ₹109.53 crore during 2008-09 to ₹ 220.90 crore during 2012-13. The major referral expenditure incurred was ₹ 170 crore at Central Hospital/SCR, ₹ 112 crore at Central Hospital/Byculla (CR), ₹ 98 crore at Central Hospital/New Delhi (NR), ₹ 54 crore at Jagjivan Ram Hospital/Mumbai (WR) and ₹ 32 crore at Central Hospital/Perambur(SR) during 2008-13. The increasing trend of referral expenditure during 2008-13 was as depicted below:

Figure 4: Expenditure towards referral cases from selected hospitals during 2008-13



III. Though Railway Board's guidelines for empanelment of hospitals were followed, the terms and conditions contained in the MoUs executed with the private hospitals were not uniform. A test check in

[81] ***Expenditure incurred towards treatment of Railway Beneficiaries at Non-Railway Hospitals***
[82] ***CR (19 per cent), ECoR (15.26 per cent), NCR (16.44 per cent), NWR (30.97 per cent), SCR (32.21 per cent), SECR (26.84 per cent), SWR (18.51 per cent), WR (15.24 per cent)***

SCR revealed that though the clauses such as training of doctors and paramedical staff in the private empanelled hospitals and the lowest tariff charging for railways in comparison with other institutions etc. were available in the MoU executed by the SCR Zonal HQrs., the same were not incorporated in the MoU executed in the divisional level;

IV. Railway Board in March 2013 had provided various yardsticks for manpower planning of Medical department. The extent of specialty services that should be made available in Central Hospitals and in Divisional Hospitals irrespective of their bed strength and other hospitals with more than 100 bed strength and Sub-Divisional / Workshop Hospitals depending on the bed strength was laid down. A test check of five Divisional Hospitals over five ZRs revealed that there was shortage of three to seven specialty services.

(Appendix XII)

V. Analysis of the expenditure incurred by the Hospitals in the Zonal Railways revealed the following:

i. Though an advance cardiac centre was made operational in January 2011 at Central Hospital/ER, patients were referred to private recognized hospitals for cardiac treatment and an expenditure of ₹ 1.77 crore was incurred between February 2011 and March 2013.

ii. Central Hospital, Lallaguda (SCR) referred 5330 patients to private hospitals for CT Scan and MRI during 2009-12 and incurred expenditure of ₹ 2.05 crore[83]. The hospital also referred 245 haemodialysis patients to private hospitals during 2010-13 as the existing facility caters to only 25 patients per annum. This had resulted in extra expenditure of ₹ 8.53 crore as the monthly expenditure per patient was ₹ 40,000 when referred to private hospital whereas the expenditure was only ₹11,000 when the dialysis is conducted at Railway Hospital. Similar instances were

[83] ***CT Scan (3745 patients- ₹1.11 crore) and MRI (1585 patients- ₹0.94 crore) during 2009-12***

noticed at Central Hospital/ER where an additional expenditure of ₹ 25 lakh was incurred on referring patients for haemodialysis during 2011-13 as existing three haemodialysis units and other logistics were not adequate to meet the demand.

iii. In SWR, Audit observed wide variation in rates between Apollo Hospital and St. Johns hospital for identical treatment. The difference in rates was up to 143.4 *per cent*, 1052 *per cent*, 439 *per cent* and 110 *per cent* for cardiology, nephrology, neurosurgery and orthopedics respectively. Despite higher rates, number of patients (4786) referred to Apollo Hospital was more than the patients (1694) referred to St. Johns hospital. During 2008-13, on an average expenditure of ₹ 34 lakh per patient was incurred towards treatment at Apollo Hospital as against the expenditure of ₹ 28 lakh for treatment at St. Johns hospital.

Railway Board stated that small hospitals are not geared up for specialised treatment. In this connection, it is stated that even in Central Hospitals in ER and SCR where requisite facilities were available as mentioned above, patients were referred to recognized private hospitals. Moreover, avoidable financial implication was not given consideration in SWR while referring to private hospitals having identical treatment facilities.

Thus, lack of adequate infrastructure facility resulted in significant increase in expenditure towards treatment at non- railway hospitals.

5.4 Diet Charges

Diet supplied to patients in railway hospitals are charged as per the rates as prescribed from time to time. Indian Railways Medical Manual[84] provides that the rates of diet charges are required to be fixed by the Zonal Railway on 'No profit No-loss basis'. In addition, 20 *per cent* of the total cost so fixed for basic provisions is to be included to meet the cost of overheads and the rates thus fixed are to be reviewed every three years.

[84] ***Para 642 of IRMM of 2000 (Volume – I)***

Further, in the event of treatment in recognized private hospitals, the diet charges should be recovered at the rate 20 *per cent*[85] of the room rent charges in case tariff does not indicate the accommodation and diet charges separately.

Scrutiny of records relating to revision and recovery of diet charges from the patients revealed the following:

I. Revision of diet charges was not carried out in the stipulated period of three years in nine ZRs[86] and in two PUs (CLW/Chittaranjan and RCF/Kapurthala). In CLW/Chittaranjan and CR, diet charges were not revised during the period 1999 – 2013 and 1999-2012 respectively;

II. In seven ZRs and one PU[87], short recovery of diet charges amounted to ₹ 1.78 crore. Short /non recovery of diet charges from patients in remaining five other ZRs[88] could not be assessed in Audit due to improper maintenance or non-availability of records;

III. Recovery of diet charges of ₹ 29 lakh was not made from patients who availed of treatment in private hospitals in five ZRs and four[89] PUs;

IV. The approach of the medical department for recovery of diet charges in respect of patients who availed of treatment at Non-Railway Hospitals varied across ZRs as indicated below:

i. In 15 hospitals and 15 Health Units over four[90] ZRs where reimbursement of room rent / bed charges were made at CGHS package rates, no diet charges were recovered as the components of diet charges and bed charges were not identifiable; ***(Appendix X)***

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[85] ***656 of IRMM of 2000 (Volume – I)***
[86] ***SCR, CR, ECoR, NCR, NER, NWR, SER, SR and WR (except in JRH Hospital and SDH/Valsad)***
[87] ***CR – ₹0.80 crore, ECoR –₹0.04 crore, ECR – ₹0.08lakh , NCR – ₹1.06 lakh, SECR – ₹0.07 crore, SR – ₹0.67crore, WR (DH/Ratlam & Workshop/Dahod) – ₹0.09 crore & CLW – ₹0.10 crore***
[88] ***NEFR, NER, NWR, WCR & WR (JRH Hospital)***
[89] ***ER – ₹0.05 crore, ECoR – ₹0.07crore, NCR – ₹0.07 crore, CR - ₹0.02 crore, NWR – ₹0.18 lakh, CLW - ₹0.03 crore, DLW - ₹0.03 crore, DMW – ₹0.02 crore & RCF – ₹0.75lakh***
[90] ***NR, SR, WCR & WR***

ii. In two ZRs[91], MoU executed with the private hospitals did not provide for recovery of diet charges from patients;

iii. In RWF/ Yelehanka and in SECR, diet charges were paid directly by the patients treated in private hospitals; and

iv. In SER, diet charges were not recovered from the patients treated in private hospitals.

V. Indian Railways provide diet to patients on 'No profit No loss basis'. As per Railway Board's directives (March 2003), 20 *per cent* overhead[92] is to be included to the cost of provisions to arrive at the cost of diet. Scrutiny of records revealed that the expenditure incurred for providing diet to patients[93] was more than the amount recovered from them resulting in loss of ₹ 7.80 crore across 14 ZRs and in three PU's[94] during 2008-13 and ***(Appendix XIII)***

VI. A test check of deployment of kitchen staff in hospitals of Production Units revealed that in LLR Hospital/RCF/Kapurthala, deployment of departmental kitchen staff was not commensurate with their work load. Daily diets supplied were averaging one to three only and for this purpose one master cook, three head cooks besides one dietician were deployed. Taking into account the salaries of the kitchen staff, cost per diet ranged between ₹ 1756 and ₹ 9123 during the years 2008-13.

Thus, the Medical Department of Zonal Railways failed in periodic revision of the diet charges to be recovered from the patients. Railway Board also failed in enforcing compliance to its instructions by the Zonal Railways resulting in short recovery of ₹ 2.07 crore in addition to loss of ₹ 7.80 crore for providing diet to patients.

Railway Board stated (July 2014) that instructions had been issued to the ZRs for revision of diet charges at regular intervals. In this connection, it is stated

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[91] ***SCR & SWR***

[92] ***The actual cost of overheads should include salaries of kitchen staff, fuel charges, electric charges and water charges etc.***

[93] **which includes cost of free diet and concessional diet**

[94] ***CR, ER, NEFR, NER, NR, SCR, SECR, SER, SR, WCR, NWR, SWR, WR, NCR, CLW/Chittaranjan, DLW/Varanasi & RCF/Kapurthala***

that mere issue of instructions without proper follow up is unlikely to ensure their compliance as it was observed that despite existence of provisions, revision of diet charges was not carried out within the stipulated period of three years in nine ZRs.

5.5 Water Quality

As per Para 911 to 916 of IRMM Vol.II, provision of safe drinking water is the responsibility of Engineering Department. The Medical Department is, however, responsible for monitoring the quality of drinking water. As per extant instructions, Health Inspectors should check the presence of Residual Chlorine at various distribution points randomly and record of the same should be kept.

Scrutiny of records relating to water samples tested for Residual Chlorine, Biological analysis and Chemical analysis in the selected hospitals revealed that 19.33 *per cent* of the samples tested for Residual Chlorine, 10.95 *per cent* of the samples tested for Biological Analysis and 6.19 *per cent* of the samples tested for Chemical Analysis were not found satisfactory as indicated in the table below:

Table 3: Results of water samples tested during 2008-13

Central Hospitals of ZRs including MR and PUs					
Residual Chlorine		Biological Analysis		Chemical Analysis	
No. of samples tested	No. of samples found not satisfactory	No. of samples tested	No. of samples found not satisfactory	No. of samples tested	No. of samples found not satisfactory
346100	68176	25084	2368	721	0
Divisional and Sub-Divisional Hospitals					
861191	154067	71722	8938	1490	123
Health Units					
170325	28315	15075	1428	450	43
Workshop Hospitals					
57971	26945	4559	12	20	0
Total					
1435587	277503	116440	12746	2681	166
19.33 per cent		*10.95 per cent*		*6.19 per cent*	

Further scrutiny revealed that:

I. In Central Hospitals of four ZRs[95], water samples testing for Residual Chlorine was not done. While in five hospitals and seven HUs over three ZRs[96] and in hospital at DMW/Patiala, chemical analysis was done partially. However, in 18 hospitals and 15 HUs in six ZRs[97] and hospital attached to RWF/Yelehanka, chemical analysis was not done during 2008-13.

II. Chemical analysis was also not done at 30 Divisional /Sub-Divisional Hospitals in 14 ZRs[98] in different spells of years during 2008-13.

III. At five hospitals of four ZR[99], regular Residual Chlorine tests were not conducted in different years. Further, at seven hospitals in four ZRs[100], Bacterial analysis was not conducted in different years of the review period.

Railway Board stated (July 2014) that the percentage of samples found fit for residual chlorine was close to 90 *per cent* during 2010-12. Railway Board further stated that the shortfall in bacteriological testing at some stations was due to vacancies of Health Inspectors. In this connection, Audit observed that 19.33 *per cent* of samples tested for Residual Chlorine and 10.95 *per cent* for Biological Analysis were found unsatisfactory besides, there were instances of not conducting Residual Chlorine test and Chemical analysis in hospitals as commented above.

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[95] ***ECR (2008-13), SECR (2008-13), WR (2008-09) and MR/Kolkata (2008-09, 2009-10, 2010-11)***

[96] ***CR (2008-12) ECoR (2009-13), MR (2008-11) and DMW/Patiala (2008-09)***

[97] ***ECR, NCR,NR,SECR,SER and WR***

[98] ***DH/Kalyan, SDH/Igatpuri & SDH/Manmad of CR, SDH/Gaya & Polyclinic/Hajipur of ECR, DH/KUR of ECoR, DH/Malda (2008-11 and 2012-13, SDH/Andal and Workshop Hospital/Kanchrapara of ER, DH/Jhansi & SDH/Kanpur of NCR, DH/BNZ & SDH/GD of NER, DH/MB, SDH/Amritsar & DH/LKO of NR, DH/Lalgarh & SDH/BKI of NWR, RH/BZA, DH/RYPS & PC/KZJ of SCR, Raipur and Nagpur of SECR, DH/ADA of SER, DH/Palghat of SR, SDH/NKJ, DH/Kota & SDH/Itarsi of WCR and DH/Pratapnagar, SDH/Valsad and DH/Ratlam of WR***

[99] ***Polyclinic/Hajipur/ECR (2008-09), SDH/RYPS and Polyclinic/KZJ/ SCR (2008-13), SDH/Itarsi / WCR (2008-13) and DH/Ratlam / WR (2008-11)***

[100] ***Polyclinic/Hajipur/ECR (2008-09 & 2010-12), SDH/RYPS & PC/KZJ (2008-13) of SCR, DH/Pratapnagar (2008-10), DH/Ratlam (2008-10 & 2011-12) & SDH/Valsad (2009-13) of WR and DH/Kota (2011-13) of WCR***

Thus, Medical Department of Zonal Railways failed in ensuring provision of quality water to the patients as there were not only instances of unsatisfactory quality of water, there was also shortfall in periodical water quality check. Railway Board also failed in enforcing compliance of the extant instructions in this regard.

5.6 Food Quality

In order to ensure standards of hygiene, the food quality is tested under Prevention of Food Adulteration Act (PFA), 1954 and Prevention of Food Adulteration Rules, 1955 and also under Quality Control (QC) as provided in IRMM. The Act has been replaced with the enactment and notification of the Food Safety and Standards Act (FSSA) 2006 and Food Safety and Standards Rules 2011 with effect from August 5, 2011. Food Safety Officers (FSOs) and Health Inspectors of Medical Department in their area of jurisdiction collect the food samples under PFA Act 1954 / FSSA 2006 and Quality Control respectively and send the same to food laboratories for food quality testing.

Scrutiny of records relating to food quality checks in selected hospitals of IRs revealed that:

I. 3.28 *per cent* of the food samples collected / tested under PFA / FSSA and 2.87 *per cent* for Quality Control were found adulterated as indicated below:

Table 4: Details of Food Samples tested during 2008-13

Central Hospitals of ZRs including MR and PUs			
No. of food samples collected / tested		No. of food samples found adulterated	
PFA / FSSA	QC	PFA/FSSA	QC
1431	3730	23	142
Divisional and Sub-Divisional Hospitals			
3294	18736	132	503
Total			
4725	22466	155	645
3.28 *per cent*		2.87 *per cent*	

II. In Central Hospitals of 11 ZRs and hospitals attached to five[101] PUs, food quality checks under FSSA were not conducted. Quality Control checks were also not done in nine ZRs and four[102] PUs.

III. Food quality checks under FSSA were not conducted in nine hospitals of five ZRs[103] and in three hospitals at two ZRs[104], QC checks were not conducted in different years during 2008-13.

Railway Board stated (July 2014) that food samples are lifted by the Food Safety Officers under FSSA and sent to the notified laboratories as samples cannot be analysed in Railway Hospitals. However, the fact remained that the responsibility of maintaining desired standards of hygiene and quality food to patients rests with the Medical Department of Indian Railways which can only be ensured through regular food quality checks.

5.7 Hospital Waste Management

Each hospital should develop a proper system for collection, storage and disposal of hospital waste. Infectious waste should be subjected to incineration. Needles, scalpel, blades and discarded glassware should be disinfected by autoclaving in addition to compliance with the provisions contained in Bio-Medical waste (Management and Handling) Rules, 1998 for handling and disposal of Bio-medical waste (BMW).

Scrutiny of records related to bio-medical waste management in selected hospitals revealed the following:

I. Authorization for management and handling of BMW as per provisions contained in (Management and Handling) Rules, 1998 was

[101] ***ECR (2008-13), ECoR (2008-13), ER (2011-13), CR (2010-13), NER (2011-13), NR (2008-13), SCR (2009-13), SECR(2008-13), SR (2011-13), WR (2008-13), MR (2008-13), CLW (2008-13), DLW (2008-13), DMW (2009-13), RCF (2008-10 & 2011-13), RWF (2008-11)***

[102] ***ECR (2008-13), ECoR (2008-13), ER (2008-11), NR (2008-13), SCR (2009-13), SECR (2008-13), SR (2011-12 & 2012-13), WR (2008-11 and 2012-13), MR (2008-13), CLW (2008-13), DLW (2008-13), DMW (2009-13), RWF (2008-13).***

[103] ***SDH/Andal of ER (2008-13), SDH/Rewari & Bandikui of NWR (2008-13), SDH/BNDM (2008-13), SDH/KGP & SDH/ADA (2012-13) of SER, SDH/NKJ & SDH/Itarsi (2008-13) of WCR and DH/Pratapnagar and Ratlam , SDH/Valsad and Workshop Hospital /Dahod (2008-13) of WR***

[104] ***SDH/Gaya / ECR (2008-13, SDH/NKJ/ (2008-12) and SDH/Itarsi (2008-09(WCR))***

not obtained by 27 hospitals in five[105] ZRs and CLW/Chittaranjan (2008-10). Bio-medical wastes were disposed off either by deep burial or burning in the open air.

II. Test check of status of authorisation for handling BMW revealed the following:

i. In CR, the authorization for handling BMW in Central Hospital, Byculla was obtained only in July 2010 with validity up to October 2012. Authorisation was also not obtained for different spells during the review period by the Divisional/Sub-Divisional Hospitals at Pune, Igatpuri and Manmad (CR);

ii. In CH/Jaipur and Sub-Divisional Hospital, Rewari (NWR) authorization for handling BMW was obtained only from November 2011 and May 2011 respectively. Authorization was not obtained by the other hospitals and Health Units of the ZR;

iii. Authorization for generation and disposal of BMW for CH/SER and Divisional Hospital, Kharagpur (SER) expired on December 2012 and March 2013 respectively. No further action was taken for renewal (July/2014).

iv. In SR, authorization granted by the State Pollution Control Board to the agencies responsible for segregation of BMW CH/Perambur & Divisional Hospital/GOC(SR) (PCB) expired in 2012. However, collection and segregation was continued by those agencies without renewal of authorization. In SDH/Valsad and HU/Ahmadabad (WR), authorization for handling and disposal of BMW was valid up to July 2007 and June 2011 respectively;

III. As per provisions of Water (Prevention and Control of Pollution) Act 1974 every health care establishment should ensure disinfection of liquid waste such as waste generated from laboratory and washings, disinfecting activities by chemical treatment etc. by installing Effluent Treatment Plant (ETP) / Sewage Treatment Plant

[105] Five ***HUs/NCR, DH/KUR/ECoR, Five HUs/ECoR, Nine Hospitals/HUs/NEFR (except CH/MLG), Five HUs/NER, DH/Raipur and SDH/SDL/SECR***

(STP). Audit, however, observed that ETP/STP was not installed in any of the Central Hospitals except in three ZRs (NEFR, SECR and SR).

IV. Incinerators[106] were not available in any of the hospitals except at two hospitals of Production Units CLW/Chittaranjan and DMW/Patiala. Autoclaves[107] were also not available in five Central Hospitals (CR, ER, NER, NEFR and WCR) and in one hospital at RCF/ Kapurthala.

V. A test check in SCR revealed that BMW and other waste were segregated as per color code with labeled posters[108]. In regard to HUs at RU, MBNR & RDM where only out patients were treated, injection needles were destroyed through Electric Destroyers. However, other wastes were disposed through burning or landfill instead of incineration as prescribed in Bio-Medical waste (Management and Handling) Rules, 1998. Moreover, no data was maintained regarding the quantity of waste generated at HU/RDM and GNT.

Thus, hospitals and Health Units failed in ensuring compliance with the provisions contained in Bio-Medical waste (Management and Handling) Rules, 1998 for handling and disposal of Bio-medical waste.

No reply has been received from Railway Board (July 2014) on the issue.

5.8 National Health Programmes

Hospitals and Health Units of IR are actively involved in the implementation of various National Health Programmes such as the National Tuberculosis Control Programme, National Malaria Eradication Programme, National Filaria Control Programme, Family Welfare Programme (FWP) and National AIDS Control Programme (NACO). IR receives funds from Ministry of Health and Family Welfare (MH&FW) for FWP, for control and eradication of TB from Tuberculosis Association of India (TBAI) in the form of TB Seals and for control and prevention of AIDS from NACO. Railway Board in May

[106] ***Incinerator is the device for waste treatment for conversion of the waste into flue gas and heat***
[107] ***An Autoclave is a pressure chamber used to sterilize equipments by subjecting them to high pressure***
[108] ***Colour coded bins are used for collection of different types of waste such as yellow bins indicates waste which requires disposal by incineration, blue indicates wastes for incineration etc.***

2008 laid down the detailed procedure for accounting of the expenditure and the reimbursement received from the MH&FW.

Scrutiny of records relating to allotment and utilization of fund for implementation of various programs revealed the following:

I. In five ZR[109], detailed accounts of the amount of ₹ 26.64 lakh raised through TB Seals were not available. In three ZR[110], out of ₹ 2.99 lakh raised, an amount of ₹ 2.29 lakh remained unspent during the review period.

II. In nine ZR[111], there were 4084 live cases of HIV + ve /AIDS patients. In seven ZR[112], out of ₹ 63 lakhs NACO funds allotted, only ₹9.23 lakh (15 *per cent*) were utilized. No allocation of funds was made in 10 ZR's[113] and five PU's[114]

III. The procedure laid down by the Railway Board (May 2008) for maintaining accounts in respect of amount obtained from Ministry of Health under FWP was not followed except in WCR; and

IV. System of obtaining feedback in respect of National Health Programme was not available in five[115] zones.

Railway Board stated (July 2014) that the outcome of the Programme could not be predicted at the beginning of the financial year. RB further asserted that the funds under National Family Welfare Programme were utilized as per actual requirement. In this connection, it is stated that the medical department of Indian Railways failed in utilizing funds allotted by the MH&FW for implementing various National Health Programmes. Moreover, the procedure for maintaining accounts in respect of amount obtained from MH&FW was not followed.

[109] ***ER, SCR, NR, WCR and WR***
[110] ***NFR – ₹. 19200, ECoR – ₹. 33515 and SER - ₹. 176,120***
[111] ***ECoR,SCR,SECR,SER,SR,SWR,NWR,NCR and WR***
[112] ***ECoR,ER,SCR.SER,NWR,NFR and NER***
[113] ***ECR, SWR, SR, SECR, NCR, WCR, WR, NR,CR and MR/Kolkata***
[114] ***CLW/Chittaranjan, DLW/Varanasi, DMW/Patiala, RCF/Kapurtala and RWF/Yelehanka.***
[115] ***WR, NEFR, SER, WCR and ECoR***

5.9 Miscellaneous

5.9.1 Medical Audit

Medical Audit aims at improving the deficiencies in treatment and providing better health care facilities. In each hospital, a Committee of five doctors nominated from different departments of the hospital conducts audit of medical facilities. Status of medical audit in selected hospitals across ZRs revealed the following:

I. Medical Audit was not conducted in five Central Hospitals over five Zonal Railways[116]. In respect of Central Hospital /NCR, the information regarding medical audit was not available. Out of five hospitals of PUs, medical audit was not conducted in two hospitals at DMW/Patiala and RWF/Yelehanka;

II. Medical Audit was not conducted in nine Divisional/Sub-Divisional Hospitals across four ZRs[117]; and ***(Appendix XI)***

III. Corrective actions regarding non-maintenance of medical history, improper filing of case sheet, non recording of basic tests/investigations etc. were not taken in 10 hospitals of eight ZRs and three PUs[118].

No reply on the issue was received from the Railway Board (July 2014).

5.9.2 Blood Banks

Blood Bank is a center within an organization or an institution for collection, grouping, cross matching, storage, processing and distribution of human blood or human Blood Products from selected donors. Blood Banks are regulated under the Drugs and Cosmetics Act 1945. Existence of blood banks is necessary in the event of emergencies.

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[116] ***ECR,NEFR,SCR,SR and MR***

[117] ***CR,ER,SR and WCR***

[118] ***NEFR,SECR,SR,MR,CR,CH/Patna/ECR, RH.BZA/SCR, SDH/NKJ/WCR, CLW/Chittaranjan, DLW/Varanasi and RCF/Kapurtala***

Scrutiny of records revealed that Blood Banks were not available in 14 hospitals over 10 ZRs[119] and in three PUs[120]. Remedial measures on certain deficiencies such as storage of unscreened blood, detection of unexpected anti-bodies noticed (January 2013) by the Drug Inspector at Blood Bank in Central Hospital/LGD/SCR were not taken up.

No reply on the issue was received from the Railway Board (July 2014).

5.9.3 Fire Fighting

Hospital Administration should take adequate care in respect of handling of inflammable materials and regular maintenance, checking of electrical circuits for prevention of incidents of fire. Hospital staff should be trained to extinguish fire and emergency evacuation of patients. Fire drills as per local instructions of the Medical Officer in charge should be practiced once a month.

Scrutiny of records of selected hospitals of IRs revealed the following:

I. Fire extinguishers were available in hospitals and Health Units inspected except in three hospitals[121]. In another three hospitals[122], fire extinguishers were not kept in working condition;

II. Fire drills were either not conducted or conducted partially in 26 hospitals and 23 HUs over eight ZRs[123] and four Production Units[124]; (***Appendix XI)***

III. In SER, adequate remedial measures were not taken in respect of deficiencies pointed out (December 2011) by Fire Safety Audit of Central Hospital/Garden Reach/SER; and

[119] ***CR, ECoR, NCR, NER, NWR, SECR, SWR, WCR, WR and ECR***
[120] ***DMW/Patiala, RCF/Kapurthala and RWF/Yelehanka***
[121] ***Health Units/TJ/SR, Metro Railway and DH/Raipur/SECR***
[122] ***HUs/BAM & VZM/ECoR and DH/Lumding/NEFR***
[123] ***SCR, ECoR, CR, NR, SECR, MR/Kolkata , SDH/Andal (ER) and CH/Jaipur(NWR)***
[124] ***CLW, DLW, DMW and RCF***

IV. Non-observance of special care in respect of handling of inflammable materials such as X-ray films at CH/Byculla (CR) resulted in loss of medicines costing ₹ 0.75 crore in AC drug store due to fire.

No reply on the issue was received from the Railway Board (July 2014).

Thus, the hospitals and Health Units of IRs failed in conducting periodical fire drills in order to ensure emergency preparedness. Remedial measures suggested for the Central Hospital/Garden Reach/SER were also not taken up.

5.9.4 Telemedicine

In telemedicine center, the doctor examines the patients using computer compatible equipment. The images as seen on the monitor are attached to the patient's file for online transmission to the specialist in the main hospital for consultation.

Scrutiny of records of selected hospitals of IRs revealed the following:

I. Telemedicine facilities were not available in 30 hospitals and 30 HUs over seven ZRs and four PUs[125]. (***Appendix XI)***

II. In Kanchrapara Workshop hospital/ER, telemedicine facilities were not commissioned till December 2013, though the system was installed in August 2013 at a cost of ₹ 15 lakh;

III. Though the facilities were provided in some hospitals of the Zonal Railways and functional but were lying idle without any usage as indicated below:

i. In CH/Bilaspur, DH/Raipur and Polyclinic/Motibagh (SECR), telemedicine facility had been lying idle since 2011;

ii. In CH/PER, DH/GOC, PGT and SDH/ED (SR), telemedicine facilities were provided at a cost of ₹ 1.08 crore remained idle since 2009;

iii. In NEFR, the Telemedicine facilities were installed (October2005) at a cost of ₹ 30 lakh went out of order after about 11 months of service due to technical glitches; and

[125] ***CR, NR, NER, SCR, SWR, WCR, MR/Kolkata, DLW/Varanasi, DMW/Patiala, RCF/Kapurthala and RWF/Yelahanka***

iv. In WR, telemedicine facility provided at a cost of ₹ 1.47 crore was not functional since its commissioning.

No reply on the issue was received from the railway Board (July 2014).

Thus, the hospitals and Health Units of IR could not avail of the benefit of telemedicine facilities and achieve desired objectives as the facilities were either non-functional or out of order.

5.10 Conclusion

The allotment of funds for providing medical and health services to 64 lakh railway beneficiaries had no correlation with the increase or decrease in number of patients availed of treatment facilities. Inadequate budgetary control resulted in variation between the Final Grant and the Actual Expenditure. Medical Department had little budgetary control over the capital expenditure for procurement of medical equipments as the responsibility for allotment of funds rests on the Chief Mechanical Engineer of the Zonal Railways. There were cases of under-utilization of funds.

Shortage of doctors and paramedical staff resulted in idling of medical equipments and increase in dependency on hired medical practitioners/specialists with no accountability imposed on them. The available manpower was not rationally deployed. Engagement of contract medical practitioners/specialists incurring considerable expenditure could not minimize the expenditure on account of reference to non-railway hospitals for treatment.

The prescribed procedures for registration of vendors were not scrupulously followed. There were delays in centralized procurement which had contributed to the increase in local purchase of medicines. Local purchase exceeded the permissible limit of 15 *per cent* of the total budget allotment.

Medicines procured on single tender basis under PAC category varied across Zonal Railways.

There was lack of proper storage facilities in many hospitals across Zonal Railways. In absence of any prescribed periodicity, departmental stock

verification was not conducted in 35 hospitals over eight Zonal Railways and in hospitals of four Production Units. There was also shortfall in stock verification by the associate Accounts Department of the ZRs. The existing inventory management system was not adequately effective to minimise arising of surplus medicines. In five Zonal Railways, shelf life of medicines expired and could not be utilized. Besides supply of substandard drugs, there were also shortfalls in drug analysis. Despite having incurred expenditure of ₹57 crore towards repair and maintenance, audit observed several instances of failure of medical equipments.

The documentation in regard to uniform Medical Identity Cards across Zonal Railways including periodical updating, maintenance of Medical History Folders and actual beneficiary data was very poor. Medical department of IR could not develop and implement Hospital Management Information System in the last two decades even after spending ₹ 66 lakh which would have facilitated in effective budgeting, documentation and good quality medical care. Since the existing facilities were not sufficient enough to cater to the higher secondary and tertiary medical care, medical department of Zonal Railways incurred expenditure of ₹1146 crore during the review period for treatment of patients in recognised non-railway hospitals. Besides non-revision of diet charges, there was also short recovery of diet charges from the eligible patients. In respect of treatment in non-railway hospitals at CGHS package rates, no diet charges were recovered as the components of diet charges and bed charges were not identifiable. Significant shortfall was observed in food and water quality check. Waste treatment facilities such as Effluent Treatment Plant, incinerator etc. were not provided in many hospitals across Zonal Railways. Hospitals and Health Units of Indian Railways failed in utilizing funds allotted by the Ministry of Health and Family Welfare for implementing various National Health Programmes. Telemedicine facilities were not provided in 60 hospitals and Health Units over seven ZRs and four Production Units. In the remaining ZRs, though telemedicine facilities were provided with substantial investment, they were either non-functional or occasionally used to meet the desired objectives.

5.11 Recommendations

I. ***Health Directorate of Railway Board and Chief Medical Directors (CMDs) of Zonal Railways (ZRs) need to strengthen the process of formulation of budget with due consideration to the number of beneficiaries/patients and the infrastructural needs of the hospitals. The trend of allocation of fund for capital expenditure particularly in respect of medical equipments needs review for creating better medical facilities so as to minimise reference to non railway hospitals;***

II. ***Health Directorate of Railway Board needs to prioritise its initiative to fill in the existing vacancies in Doctors/Paramedics cadre instead of depending on hiring specialists and engaging contract medical practitioners. Available resources require rationale deployment by CMDs of ZRs on the basis of bed strength and number of patients being treated in the hospitals. Railway Board also needs to take effective steps for recruitment of specialists on regular basis;***

III. ***Health Directorate of Railway Board needs to strengthen the process of Centralised Purchase and adopt a uniform PAC list of medicines to minimise dependence on local purchase of medicines at higher rates;***

IV. ***Health Directorate of Railway Board and CMDs of ZRs need to ensure drug analysis within the prescribed time frame to prevent recurrence of supply of sub-standard drugs;***

V. ***Health Directorate of Railway Board needs to expedite the implementation of Hospital Management Information System so as to maintain Medical History Folders electronically and introduce Medical Identity Cards with photograph of individual beneficiary;***

VI. ***Health Directorate of Railway Board and CMDs of ZRs need to ensure periodical revision of diet charges recoverable from the indoor patients. In the Memorandum of Understanding with the***

non-railway hospitals for treatment at package rates, specific provision relating to diet charges may be incorporated; and

VII. Health Directorate of Railway Board and CMDs of ZRs may provide proper bio-medical wastes treatment facilities in all hospitals of Zonal Railways.

(SUMAN SAXENA)
Deputy Comptroller and Auditor General

New Delhi
Dated: 17 November 2014

Countersigned

(SHASHI KANT SHARMA)
Comptroller and Auditor General of India

New Delhi
Dated: 17 November 2014