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**10.1 Procurement of Drugs – Rs 1 billion**

Expenditure for the procurement of drugs for the financial year 2016-17 totalled
Rs 1,069,786,433. Purchases were mainly made through annual bulk tenders, bridging quotations and local purchases.

***10.1.1 Quantification of Drugs***

The Ministry did not have a standard method for the assessment of quantities that would be required for the next 15 to 18 months by each health centre and hospital. It was solely based on previous year’s consumption. Unreliable data from the Inventory Management System was used while periods of stock out and quantity purchased at hospital level were not taken into consideration when the average monthly consumption was determined.

***10.1.2 Essential List of Drugs***

The official “Essential Drug” list prepared by the Ministry in January 2017 was not used for the procurement exercise for year 2017-18; not even new drugs being introduced for the first time. There was no evidence that a transition plan has been worked out to ascertain what could have been taken on board in the 2017-18 procurement exercise.

***10.1.3 Tender Specifications/Evaluation***

Following several unsatisfactory features noted during the evaluation stage of the procurement of drugs, the Departmental Bid Committee (DBC) submitted its observations as follows:

(i) Manufacturers were eliminated for reasons of blacklisting from unauthorised sources;

(ii) There were instances where offers were rejected on ground of non-compliance with Instruction to Bidders (ITBs) while the same product from the same supplier was in use in hospitals, that is, it had been found compliant at the previous exercise;

(iii) Several offers were rejected due to high price deviation but in other instances, the Bid Evaluation Committee (BEC) recommended offers despite the price deviation of up to 300 per cent, or more on ground of criticality;

(iv) After several unsuccessful attempts to procure drugs, the Ministry had as a last resort, purchased in urgency whatever quality was available and at high prices;

(v) Several items included in tenders were not considered at evaluation on the ground of sufficient stock to be subsequently procured within a few months due to depleting stock resulting in waste of resources and risk of stock out;

(vi) Items for which no quotes were received, remained on the procurement lists with the same specifications for several exercises without review;

(vii) There was no segregation of duties with a few officers having a stronghold on several steps of the procurement process.

In addition to the above, I have observed the following:

* There were no clear procedures for the inclusion or exclusion of certain criteria in the Bid Data Sheet (BDS) as only one officer was involved in amending/including these conditions/specifications in the BDS without further approval from higher level;
* Pharmaceutical companies which were previously awarded contracts by the Ministry were eliminated on the basis that their manufacturing site was not present on the EUDRA GMP/WHOPIR/USFDA database;
* No proper records were kept by the Procurement Unit to ensure that all items listed in the initial tender exercise were eventually procured as some items were relaunched more than once;
* The BEC was constituted on the basis of recommendations made by a Senior Officer who was responsible for customising the bidding documents and who was part of the BEC and the Chairperson of the DBC approved the recommendations without any queries;
* The lead time is defined as the interval in calendar days between the preparation of the bidding documents and the issue of award of contract. In some cases, the lead time was between 112 and 152 days as compared to the 110 days recommended by the Procurement Policy Office.

***Implications***

* There was no segregation of duties as one officer seemed to be involved in several steps of the procurement process;
* The DBC has not exercised the expected control on bid documents and allowed a system without checks and balances to operate for a long time;
* The DBC failed in its responsibility of ensuring that equal opportunities were given to all prospective bidders in a tender exercise;
* The Senior Officer was a permanent member on the BEC and therefore other Officers of the Pharmacy Cadre were deprived of the opportunity of forming part of the BEC;
* Valuable bids might have been eliminated with delays in procurement resulting in stock outs and higher costs.

**10.2 Recalled Drugs**

The Ministry recalled certain pharmaceutical items which were found inappropriate for use due to deterioration, changes in colour or fake products received. I have examined a sample of cases to ensure that the Ministry has a proper system in place to ensure proper monitoring, completeness and settlement of claims.

Below are my observations on some of the cases examined.

From the sample of cases examined, the Ministry may have to bear some Rs 8 million loss due to action not taken, no proper follow up or cases being dragged for too long.

***10.2.1 Paracetamol Solution IV 50 and 100 ml – Rs 2,534,265***

A total of 16,137 vials of 50 ml and 16,275 vials of 100 ml were recalled from health institutions and removed from distribution for being fake products. In May 2017, The Ministry requested the supplier to refund Rs 1,596,993 representing the value of the incriminated quantity. In March 2015, 7,144 vials and 11,404 vials of 50 ml and 100 ml respectively were also recalled from health centres and hospitals, but no entries were made in the system for these returns. The Procurement Unit has never been informed of the quantities recalled from outstations. Hence, the amount claimed was understated by Rs 937,272.

As at October 2017, the matter was still not yet resolved.

***10.2.2 Mucosol Cough Syrup – Rs 3,727,080***

In June 2017, the cough syrup was reported to be unfit for consumption as floating particles were found in all the batches of the Mucosol expectorant. On 19 July 2017, the Ministry instructed the hospitals and health centres to send back all unused flasks to the Central Supplies Division (CSD).

In August 2017, the supplier was requested to refund in cash the sum of Rs 3,727,080 and was also required to retrieve all the Mucosol flasks stored at Tobacco Board at his own costs. In October 2017, no action was taken by the supplier to either refund the amount or to take back the 302,736 flasks and these were occupying much space in the store at the Tobacco Board.

***10.2.3 Methyl Prednisolone 40 mg/ml Injection – Rs 898,289***

In July 2015, some 1,945 injections, from a batch of 10,000 received on 1 October 2014, were recalled from Health Institutions due to quality issues. The ampoules returned by outstations were not input in the Inventory System. The total recalled drugs from this batch amounted to Rs 94,916.

In November 2016, 7,143 ampoules worth Rs 803,373 were found unfit for use and removed from the system.

The information was not available at the Ministry Headquarters. There was no indication that the injections were defective and hence, no action has been taken up to now for a refund or replacement.

***10.2.4 Amoxycillin (Trihydrate) Suspension 125mg/5 ml x 100 ml – Rs 863,000***

In October 2016, this item was recalled due to quality issues. A total of 94,882 flasks worth some Rs 863,000 were recalled and stored at Guibies Store.

In October 2017, a year after, no action was taken by the Ministry to recoup the amount paid as no claim has been sent to the supplier.

***Implications***

* The Ministry may not be recovering the actual loss sustained due to non-compliance with procedures, shortcomings in operation and lack of monitoring at the Procurement Unit;
* The above cases totalled some Rs 8 million which the Ministry may lose as action was not taken, or if initiated, not properly followed up and allowed to drag for too long;
* The Finance Section was not informed of claims and no Advance Account ‘Claims’ was opened as required by regulations.

***Recommendations***

* Clear procedures should be established in line with provisions of the Financial Management Manual so that all cases where claims are warranted are captured and followed up;
* A Claims Register should be maintained to ensure completeness and allow for proper follow up;
* The Finance Section should be informed of all claims and an Advance Account ‘Claims’ should be opened whenever warranted.

***Ministry’s Reply***

The CSD will be requested to undertake an exercise for accurate, correct quantification for all recalled items with a view to enabling the Procurement Unit to initiate action for timely reimbursement.

**10.3 Cancer Treatment and Radiotherapy Equipment**

The Cancer Unit at Victoria Hospital (VH) was set up in 1967 with infrastructure comprising two inpatient wards and an outpatient section, as well as few offices. Since 1994, no major development was made and no extension added to the existing infrastructure of the now Radiotherapy and Oncology Department (RT). With all patients attending the Outpatient Department and those coming for radiotherapy sessions, space and logistics constraints exacerbated.

Cancer has become the third major health threat after diabetes and cardiovascular diseases in Mauritius. According to health statistics, around 1,850 new cancer cases were registered in 2016 together with some 35,300 follow-up cases. Cancer was constantly on the rise over the last 10 years resulting in a corresponding increase in deaths with
1,265 deaths in 2016 as compared to 914 in 2006.

Cancer treatments included surgery, chemotherapy and/or radiotherapy and targeted therapy. Chemotherapy, palliative care and follow-up services which were previously carried out at Victoria Hospital (VH) were now decentralised to three other hospitals and private clinics. However, there was only one Radiotherapy Centre in Mauritius at VH to cater for radiotherapy treatment of all patients from public and private health institutions. Being the only treatment centre in Mauritius, it was noted that such lifesaving radiotherapy equipment were inadequate, obsolete and inappropriate for the sustainable treatment of all cancer patients.

***10.3.1 The Radiotherapy Equipment***

The radiotherapy equipment base consisted mainly of a linear accelerator (LINAC), two cobalt apparatuses, an X-Ray simulator and a brachytherapy apparatus costing a total of some Rs 110 million and which were all acquired before 2010. Both the LINAC and the X-Ray simulator were out of order, while the cobalt apparatuses were not maintained and serviced properly.

The equipment was aged between 8 to 23 years and was considered outdated as reported by the Radiation Protection Authority (RPA), whose last visit at VH was in 2012, stating that treatment delivered by the RT Centre has become outdated. A similar view was also expressed by the RT Centre basing on the huge gap between new technologies available abroad and what existed and provided to patients in Mauritius.

***10.3.2 Radiotherapy Equipment and Number of Patients***

The ratio of RT equipment to radiotherapy patients was not proportionate to attend to all needy cancer patients in an adequate manner. When all the machines were in working condition, some 120 patients were being treated daily at the RT Unit, that is, some
60 patients on the LINAC and the remaining 60 on the two Cobalt Machines. Further, one patient per week was being treated on the brachytherapy apparatus. On 21 August 2013, a Consultant of RT Centre highlighted that the Centre should be having four such machines based on the recommendation of a Physicist from International Atomic Energy Agency (IAEA). However, four years later when the number of cancer cases was constantly increasing, the Centre has only two radiotherapy machines which were not working properly.

***10.3.3 Linear Accelerator Equipment***

The sole linear accelerator (obtained in 1994) in Mauritius was considered as one of the five most important and major (hi-tech) equipment owned by the MoHQL. Over the past four years, an average of about 550 patients was treated annually on the LINAC, even when the equipment was fully functional. Several problems were observed for the LINAC which was out of order since May 2017, with a major feature (the electron mode) failing since end 2016.

*Usage Rate*

According to international norms, the average life span of LINAC was only 10 years and treated only four to five patients per hour. However, these norms could not be adhered to by the Department. In 2017, it was 23 years old, well exceeding its life-time.

*Equipment Replacement*

On several occasions, the Consultant in Charge stated that the LINAC was obsolete and was working beyond its capacity and needed an urgent replacement as complete breakdown at any moment would be catastrophic to the Department. However, the equipment was not replaced till date. No explanation was obtained as to why a second and more sophisticated one was not purchased despite the need for a second linear accelerator being felt since 1998 (four years after the acquisition of the actual LINAC).

*Maintenance Agreement*

The Ministry had a Planned Preventive Maintenance Contract with Company A for several years and the last one being for the period 16 August 2016 to 15 August 2017. The contract amounting to Rs 747,500 was awarded even though the Company had already expressed doubt about maintaining the equipment for an extended period of time.

From 21 September 2016 to 15 August 2017, the LINAC was barely used. On
14 December 2016, the electron chamber was replaced for the sum of Rs 425,632 with one year warranty but seven days later the LINAC was still not working well, particularly the electron component. The one year warranty was not enforced as the electron mode did not function at all. In May 2017, the Ministry was informed that there were no spare parts available for the LINAC and was advised to stop the use of the electron mode.

*Impact on the Quality of Treatment Arising from the Breakdown of LINAC*

The electron treatment was vital for the proper oncological management of the patients since there was no substitute treatment. Omission of electron would lead to cancer recurrence which would add to the cost of health care. Patients who imperatively needed electron mode for their treatment were sent back due to non-functioning of equipment. Postponing the treatment was life threatening as the disease might spread to the whole body (Metastasis) and treatment would be of limited use at that stage. A decision was reached by the RT Unit to send patients who were awaiting electron therapy abroad.

*Overseas Treatment of Patients Needing Electron Therapy*

In February 2017 a list of 25 patients was drawn by the Radiotherapy Centre and the patients were to be sent abroad for electron treatment. The Ministry had to incur the costs of air tickets and lodging for the patient and one accompanying person as well as the overseas hospital bills. The patients had to disburse costs for food/drink expenses and any additional charges for upgrade of the actual standard of the guest house. It was more than three months after, in June 2017 that the first batch of patients requiring electron treatment was sent to India. However, the outsourcing of the electron treatment was apparently not done in a smooth manner despite the extra costs incurred by the Ministry:

* I was informed that one patient refused to go abroad and that two of the 25 patients had refused treatment once they reached India and returned to Mauritius. Complaints were received regarding accommodation, language, food problems and lot of inconveniences and stress of being away from family given their medical conditions;
* At end of October 2017, the Ministry had not yet compiled figures for the sum to be spent for the 24 patients as hospital bills were not received at the Ministry up till now. Based on applicable rates it was estimated that some Rs 1.8 million would have to be disbursed by the Ministry for the 24 patients. This figure would continue to rise until new equipment was acquired by the Ministry;
* It was also not known if all patients requiring specific treatment would be sent abroad as statistics showed that 60 patients were treated on a daily basis on the LINAC, but only 25 were shortlisted for overseas treatment.

***10.3.4 The Way Forward***

Since 2012, Government was contemplating development of new infrastructure, as well as for provision of high-technology equipment. Five years later, when the number of cancer cases had increased considerably, the RT Department still lagged behind as compared to other services using latest technology. Charting the way forward for cancer treatment was not forcefully addressed by the Ministry. New projects continue to be stalled, while some patients have been shifted to the two existing overloaded and not well maintained cobalt machines, although international trend was to provide treatment on linear accelerators.

*Investment of MOHQL towards Enhancing the Radiotherapy Unit*

In 2014, a sum of Rs 5 million was budgeted for reconstruction of a Radiotherapy Department at VH, but no amount was spent in that year. From January 2015 to June 2017, a total amount of Rs 87 million was initially budgeted to convert a private clinic to a new Cancer Centre, including equipment to be acquired. However, only Rs 2,344,558 were disbursed by the Ministry (2.7 per cent of the budgeted funds). A sum of
Rs 150 million was voted to acquire a Linear Accelerator for VH, in the 2017-18 budget.

*Healthcare Implications due to Unavailability of the LINAC*

The Consultant Oncologist reported that patients who were being shifted to the two cobalt apparatuses were receiving treatment which was not the recommended one, but it was the only option left to be used. Other implications noted were:

* Longer waiting time for patients to get their radiotherapy after their chemotherapy. The waiting time was previously three months but with the breakdown of the radiotherapy equipment, the waiting time continued to increase;
* In the absence of adequate information, it was not possible to assess the real impact on the patients concerned since December 2016 when the electron mode was no longer effective and whether all patients requiring Radiotherapy were getting adequate treatment.

***Conclusion***

With advanced technology leading the whole world, the technology of equipment used for radiotherapy in Mauritius was found to be obsolete and the Department has lagged behind. A revamping of the whole system with provision of new infrastructure and latest equipment is vital to the cancer patients. A well dedicated staff at the RT unit alone will not be sufficient to give the best treatment without an up-to-date and properly maintained equipment base. As opposed to what the Ministry declarations about state-of-the-art medical equipment, very little was done for years to provide an acceptable level of radiotherapy treatment to patients, especially to those at the terminal stage.

***Recommendations***

There is an urgent need for the Ministry to fast track the project regarding the setting up of a fully equipped and modern Radiotherapy and Oncology Centre for the benefit of patients.

***Ministry’s Reply***

* Action has been initiated by the Ministry for the procurement of spare parts for the Linear Accelerator;
* Procurement procedures have also been initiated for the acquisition of a 2D simulator;
* Government has earmarked Rs 300 million for the project to convert the Ex-Med-Point Hospital into a state of the Art Cancer Centre and consist of the construction of a Radiotherapy Block. The Centre will cater for the next 25 years and will have
180 beds plus 50 beds in Day-Care Ward and eight in ICU.

**10.4 Acquisition of two CT Scanners – Rs 52,435,516**

Approval for the acquisition of two scanners by the Ministry was obtained in May 2015. It was only one year later that procedures started for the launching of the bid for the procurement of one CT Scanner for the Sir S.Ramgoolam National Hospital **(**SSRNH) at the estimated cost of Rs 30 million. The Ministry awarded two contracts to Supplier A in 2016-17 for the supply, installation and commissioning of two CT Scanners for the SSRNH and J. Nehru Hospital (JNH)on 19 October 2016 and 4 May 2017 for the sums of Rs 28,136,179 and Rs 24,299,337 respectively. Procurement procedures were found to be inappropriate and not always in compliance with the provisions of the Public Procurement Act (PPA) as explained below.

***10.4.1 General Issues - Procurement Planning and Specifications Setting***

Based on the estimated cost of Rs 30 million for a scanner, the procurement of two scanners would amount to some Rs 60 million and would have required that procurement procedures be undertaken by the Central Procurement Board (CPB) as the threshold of
Rs 50 million would have been exceeded. The procurement exercise was split into two distinct bidding exercises contrary to the Section 49 of the PPA, stating that “no public body may artificially divide the modalities of procurement in such a way as to avoid any monetary threshold laid down in the Act”.

The Ministry was of the view that one Scanner could be procured at its level on a “faster basis compared to two at the level of the CPB”. Two awards were made during the same financial year at an interval of some five months. The interval could have been substantially shorter if there was not a delay of some two and a half months with regard to the finalisation of the specifications at the JNH and about one and half months delay in the electrical and cabling works due to inadequate planning. The specifications of the SSRNH Scanner could have been used for purchasing that of the JNH by allowing for some modifications where necessary.

End users were given the discretionary powers to select their CT scanners and choose their specifications without the involvement of the Ministry. The latter did not ensure that there was adequate coordination to come up with a standard specification for CT scanner for the two Hospitals. Contrary to that purchased for the SSRNH which was a 128-slice, the scanner for the JNH was to be of only 64 slices/images per 3600 rotation but was to be subsequently upgraded to 128-slice. Further, several other dedicated software applications were not requested as that for the SSRNH.

Those who prepared the specifications were of the view that the excluded features were not needed or would rarely be used. However, another version has been obtained from the SSRNH. Except for cardiac examinations for which sufficient training had not been provided, the Consultant in Charge of the Radiology Section of the SSRNH informed that all other software applications were being used. The SSRNH and JNH had therefore diverging views on the software application packages.

Two Public Officials involved in the preparation of specifications also formed part of the Bid Evaluation Committee for the JNH scanner. This practice was in contradiction with Guideline from the Procurement Policy Office (PPO) in that it did not ensure an independent evaluation process and this might have led to conflict of interest.

***Ministry’s Reply***

Safeguards have been put in place for the composition of Bid Evaluation Committees including the nomination of Chairpersons, Members and Secretary in order to henceforth avoid officers involved in preparations of specifications and Bidding Documents to form part of BECs.

***10.4.2 Specific Observations - Scanner for JNH***

*Bidding Documents*

Five bids were received with prices ranging from Rs 24 million to Rs 30.7 million with Supplier A submitting two offers. There was no information in the Bid Evaluation Report (BER) regarding the make and model submitted by the other four bidders except for Supplier A, the successful bidder. There was no narrative on the assessment of the technical requirements of the bidders except that Supplier A was the lowest substantially responsive bid. Further, the original bids were not produced for audit as it could not be traced.

*Bid Evaluation*

Contradictory bid submissions from Supplier A in the Bid Summary Sheet and Price Schedule regarding the number of slices were noted. The main offer was a 128-slice
CT Scanner which had been accepted by the Ministry was not as per the requirement, that is a 64-slice Scanner. The equipment for the SSRNH was a Siemens Somatom Definition AS 128 with 128 slices from its 64 Rows. For the JNH, at Section 4, sub section 3.2 of the Technical Requirement, the bidder disclosed among others that the Scanner would achieve 128 slices which was contrary to the requirement of 64 slices. The CT Scanners for both SSRNH and JNH were of the same make and model with both providing
128 slices. The proposal for the JNH should have been rejected outright.

Although the scanner had not yet been commissioned, it was already in use. The Radiation Protection Authority (RPA) gave a temporary authorisation in September 2017 to use the scanner for the period 25 to 29 September 2017 for application training only with a limit of five patients daily. One month after this temporary authorisation, the final certificate from the RPA had still not been issued as the infrastructure needed improvement with regard to radiation issues. Hence, the restriction from the RPA had not been adhered to, as some 145 cases of CT scanning had been performed as at 23 October 2017.

***Ministry’s Reply***

The Hospital Physicist also carried out a series of tests together with the supplier’s technicians in the CT Scan room and the tests have passed and all the values were stored on computer.

***10.4.3 Specific Observations - SSRNH Scanner***

More than eight months after the commissioning, overseas training to officers of the Bio-Medical Engineering Unit and local training to the Radiologists and Imaging Technicians had not yet been provided though Rs 450,000 had already been paid. I was informed that the remaining local training was related to the Cardiac Software Applications as a result of which Cardiac CT Examinations were not being done.

***Recommendation***

The Ministry must adopt consistent and appropriate procurement procedures in compliance with the Procurement Laws and Regulations especially for such vital, high value diagnostic equipment for the MOHQL.

**10.5 Licensing of Private Health Institutions**

The health care system in Mauritius comprised both the public and private health stakeholders namely private health institutions, the civil society, Non-Governmental Organizations (NGOs) and the public at large. The Ministry operated an island wide network of five regional, two district and five specialised hospitals with a total of some 3,700 beds in addition to pharmacies, laboratories, dialysis units, imaging services and so on, at numerous locations. The public health services worked in parallel with licensed private health institutions (PHI) that included 20 private clinics/hospitals,
344 pharmaceutical outlets, 7 dialysis units as well as 16 health care units and 39 clinical laboratories. The National Health Accounts 2015 issued by the MOHQL tracked the national spending on health in the Republic of Mauritius for the financial year 2014. Out of a total estimated health expenditure of Rs 21.5 billion in the country, spending by the Government was some Rs 10.5 billion and private health expenditure was Rs 11.0 billion, out of which households spent Rs 10.8 billion.

Under the Private Health Institutions Act 1989 (PHI Act 1989), the MOHQL was responsible to license PHI upon payment of licence fees governed by the Private Health Institutions (Fees) Regulations 2016 including hospitals, clinical laboratories, nursing homes and other health care units. Licensing applications were entertained by an administrative unit at the Ministry supported by inspection teams which evaluated the technical compliance with assessment checklists and submission of supporting documents. The Ministry was also vested with powers for inspection and issuing directions/notices to eventually surrender drugs or apparatus and also power to call for information. Unlike accreditation and certification, which tended to be voluntary forms of external evaluation, licensing was by definition mandatory.

A license issued by the MOHQL to a private health institution was synonymous of its permission for the PHIs to operate legally by providing a minimum standard of care or services to patients. The review of the licensing system revealed cases of non-compliance with law and revenue collection:

***10.5.1 Legal provisions for Licensing of Private Health Institutions***

Regulation is a dynamic process that needs to be scrutinised, challenged and improved to adjust to the changing society and health care environment. The main licensing legislation governing the fitness of PHIs dated since 1989 and was not revised despite changes brought to the running of the private health institutions and the Ministry over the last 28 years. A scrutiny of the application of the legal provisions revealed many instances where the Ministry did not ensure that they were always correctly interpreted and applied:

* *Discretionary Powers to the Permanent Secretary –*Many discretionary powers were conferred to the ‘Permanent Secretary’ (PS) of the Ministry under the Act but were not exercised in a comprehensive manner as Regulations did not exist to prescribe important licensing documents such as the application form, the license format and a register of every licensed health institution for a more standardised licensing system;
* *Other Licensing Issues –* Several licensing matters were noted whereby uncertainty/ ambiguity existed in the interpretation and application of the existing law. Such matters included incidents reporting and investigation and a fair appeal system for aggrieved people. No regulations also existed for governing transfer of licenses as well as alterations/additions of new hospital services and their notification to the Ministry;
* *Licensing, monitoring and enforcement duties of the Ministry –* The functions of licensing, monitoring of PHI and ensuring compliance with license terms and conditions were not comprehensively addressed. The actual set-up was inadequate as only the licensing function was being primarily carried out. The Ministry had the power to issue directions, notices to ensure compliance but no enforcement unit was set up to monitor and oversee the operations of the PHIs.

***10.5.2 Compliance with the Private Health Institutions (Fees) Regulations 2016***

In 2016, the MOHQL promulgated the Private Health Institutions (Fees) Regulations 2016 prescribing licence and renewal fees for a schedule of different categories of PHI. As of November 2017, the Ministry had issued licenses for 20 private hospitals,
39 clinical laboratories, three Nursing Homes, 18 Health Care Units. However, it has been observed that many PHIs were offering health services without being regulated/ licensed. Potentially there were over 460 PHIs which delivered health services to the public but without being regulated. These PHIs if licensed would potentially yield a minimum of Rs 1.6 million equivalent of yearly licence fees. Table 10-1 refers. The Ministry could not ascertain whether all these services were according to basic norms and medical standards.

In November 2016, following a legal advice sought by the Ministry, the Solicitor General in its reply to the Senior Chief Executive, was of the opinion that “should your Ministry consider that licence and renewal fees should apply to any other categories of private health institutions not listed in the Schedule to the 2016 Regulations, you may accordingly wish to amend the 2016 Regulations to provide for same”. As of
19 December 2017, these Regulations were not amended despite having numerous types of private health institutions that were operating without licence. Other categories of PHIs included spine treatment centres, dental clinics and tattoo and piercing studios, amongst others.

*Table 10-1 Potential Licence Fees*

|  |  |  |
| --- | --- | --- |
| **Category of Health services** | **Number Unlicensed** | **License fees worth** |
| Clinical Laboratories Branch laboratories/ collection points(66) | 66 | 660,000 |
| Nursing Home: Only 3 out of 24 Homes were licensed | 21 | 126,000 |
| Dental Surgeries/ dental care services: Surgeons/ Specialists in endodontics and orthodontists | 175 | 875,000 |
| Other private health related units include Eye health care units: Ophthalmologists(20), optometrist/ opticians (67) ; Gynaecologists(60), Cardiologists(27); Wellness clinic/ spa (26), Yoga centres(2) Ayurvedic clinic(5), Spine treatment centre/ tattoo and piercing studios | 207 | ? |
| **Total potential licence fees not collected** | **469** | **1,661,000** |

***10.5.3 Licensing of Clinical Laboratory Operations***

Applications (first time and renewal) made by an applicant were channeled to the Director Laboratory Services for inspection purposes and recommendation as per a standard checklist on technical requirements. In parallel the MOHQL also required a report regarding the sanitary condition of the laboratories from the Regional Public Health Superintendent. Recommendations upon inspections carried out were endorsed at the MOHQL for the issue of licenses if found in order. Renewal was done on a yearly basis. Shortcomings were noted in the licensing system for clinical laboratories:

*Inspection Process and Assessment Checklist*

The inspection process was not carried out in an optimal manner by the inspection team which lacked independence as the composition of the team rested with a Consultant Pathologist who was a shareholder of a private laboratory that required inspection. Also, the Inspection Questionnaire dated since some 10 years and it did not always contain provisions that were comprehensive, updated and relevant thus putting to test the validity of the assessment tool to determine the fitness of the laboratories for licensing purposes. The Ministry did not use the World Health Organisation (WHO) Laboratory Assessment Tool issued in 2012 to assist in assessing laboratories.

*Conflict of Interest*

The MoHQL had issued two licences to private laboratories having Consultant Pathologists as shareholders. As Public Officials, these Consultant Pathologists were required to comply with the legal requirements regarding conflict of interest.

The MoHQL continued to involve the Consultant Pathologist in proceedings related to the revision of the tariff rates for laboratory tests; the revision of legislations for licensing private laboratories; updating assessment questionnaires to determine fitness of laboratories and formulating proposals for charging licence fees for clinical laboratories.

***Ministry’s Comments***

To avoid conflict of interest, the Pathologist has never visited any private laboratories for licensing purposes and does not participate in procurement exercises of laboratory equipment and reagents. None of them are owners of private laboratories.

***10.5.4 Monitoring and Evaluation of Laboratory Operations***

With the recent growth in the number of private clinical laboratories, the MoHQL had not set up a monitoring and evaluation function to ensure a sound and healthy growth of this health segment/industry. Regular checks were not carried out to detect dysfunctional laboratory activities. There must be continuous monitoring and not one off yearly notified inspections for licensing purposes. Potentially uncontrolled areas included:

* *Fiscal benefits –* Private health institutions enjoyed tax concessions (VAT exemptions) on laboratory goods and services. The total tax concession was not known to the MoHQL and it was difficult to assess whether the laboratory was in fact delivering laboratory services. Further, private laboratories were not required to submit a copy of their audited Financial Statements and annual accounts (as filed with the Registrar of Companies) to the MoHQL and to demonstrate their financial and operational integrity;
* *Outsourcing/referral of tests –* Many clinical laboratories were outsourcing/referring their tests (even basic ones) to other laboratories especially the Central Health Laboratory (CHL). No restrictions on the outsourcing of tests were seen formulated especially for tests to be performed at odd hours/emergencies. CHL tariff rates were nominal and its overuse would be prejudicial to the interest of Government.

***Recommendations***

The Ministry should consider reviewing the existing regulatory mechanism to define the scope of the licensing laws for the issue of licenses to all PHIs. The roles and responsibilities of public officials should be clearly defined so as to avoid conflict of interests. The MOHQL needs to strengthen the licensing set-up through a monitoring/evaluation function, as well as an enforcement unit to ensure that the health services delivered to the public meet established standards.

**10.6 Review of the National Blood Transfusion Services**

***10.6.1 Background***

The MOHQL operates the largest medical laboratory services with over 13 million tests with a network of laboratories that includes the National Blood Transfusion Services (NBTS) which caters for the need of blood and blood components for all public and private health care institutions in Mauritius and Rodrigues. Some 45,000 to 50,000 whole blood units are donated by the public every year with the assistance of the civil society and several NGOs for blood collection.

Blood and blood products (platelets, plasma, red cells, cryoprecipitate, filtered blood, and apheresis products) constitute a scarce, natural and lifesaving resource that are used more and more by hospitals and clinics for transfusion to needy patients - involved in road accidents, undergoing dialysis, surgeries, organ transplants, cancer treatments and any blood disorder.

The NBTS is manned by some 100 staff and operates on a 24/7 basis and is responsible for providing blood and blood components to all private and public health institutions. In 2016-17 it collected some 42,000 which were further processed and separated into some 100,000 components. Blood availability is solely dependent on donors. Blood units are classified into different blood groups with varying shelf lives ranging from five days to one year beyond which the blood products need discarding. The NBTS is responsible for processes linked to donor motivation, blood collection, production of blood components, testing and issue of safe blood for transfusion and the investigation of transfusion reactions.

The achievements of the NBTS are commendable as it manages to supply safe blood all the year albeit in an erratic manner to meet even more erratic demands of all the hospitals. The review of the NBTS shows that the MoHQL has not always taken adequate measures to develop strategically the national blood system in a structured manner to avoid blood shortage or wastage.

***10.6.2 Financial Implications and Costing Structures***

Despite the significant financial implications of blood management processes, few costing structures were compiled by the Ministry to ascertain the true costs of services. Total estimated running costs for the NBTS were around Rs 145 million annually. It handled stock of blood products worth Rs 112 million. The revenue generated for blood tests and products amounted to some Rs 7 million for 2016-17.

***10.6.3 Regulatory Framework - Legislative Framework and Blood Policy Formulation***

The law has a specific role to play in blood transfusion as blood constitutes a national resource and not a commercial commodity. The MOHQL is responsible for providing effective leadership and governance in developing a national blood system but till now the NBTS has not been formally regulated. Currently there are no dedicated blood regulations/ legislation covering the different blood management aspects, contrary to WHO recommendations made in 1975 urging member states to promote the development of national blood services on a voluntary and non-remunerated manner and to enact effective legislations governing the operations of blood services.

A draftnational blood policy was formulated at the NBTS in 2003 but same has not yet reviewed and endorsed officially by the Ministry. I have been informed that discussions are being held before finalising the document. A national blood policy constitutes a formal statement of intent from Government that addresses key organisational, financial, technical and legal issues in establishing and developing the national blood system.

***10.6.4 Strategic Planning and Risk Management***

The provision of safe and adequate blood was a Government responsibility and needed to form part of the national health care policy and health care infrastructure. WHO recommended that every country should put in place policies, systems and structures to ensure the safety, quality, accessibility and timely availability of blood and blood products to meet the needs of all patients requiring transfusion. The strategic planning framework for the current national blood system was not comprehensive as blood management issues were being developed and implemented in a piecemeal manner:

* *Strategic Plan –* The MOHQL/NBTS did not formulate a strategic plan to give a strategic thrust to the development of a national blood system despite that the NBTS was already operating as the sole blood center in Mauritius. Strategies were needed to increase the pool of voluntary blood donors to sustain blood supply at all times and to address other issues such as building partnerships with the media and conducting a professional survey to understand donor attitude and behavior;
* *Risk Management Framework –* Risks in the management of blood products were numerous such as blood shortages and wastages, unsafe blood, transfusion protocols and paid donors. A risk management framework was not set up by the Ministry to identify, evaluate and mitigate risks in blood management.

I am informed that the contingent plan for blood requirements and disaster preparedness is in place.

***10.6.5 Blood Information Management***

Information management constituted an important tool for understanding donors. Apart from yearly segmental analysis, little use was made of the database to gather information profiles for the last 10 years of accumulated donor and donation practices. Profiling of
10 years data for blood management issues was carried out by this Office and provided the basis to obtain the following baseline information for strategic planning and control purposes:

* *National Donor Database –* Donor records were vital to maintain the safety of the blood supply and building a stable base of voluntary blood donors. The NBTS computerised its activities since 2009 with a repository of blood related information for some 190,000 donors aged between 17 to 65 years. However, this donor database was not updated with daily deaths particulars of the Civil Status Office to weed out donors who passed away over the last 10 years and also to update donor contacts details;
* *Blood group prevalence in Mauritius -* The Mauritian population has a mixed origin and possibly an equally diverse blood group profile. The NBTS did not have an updated empirical data on the national blood group prevalence for the population but was using outdated and inaccurate blood grouping information in its official brochures. This Office compiled figures for some 172,000 donors which were different from NBTS figures;
* *Negative blood group donors -*Negative blood group donors accounted for only
3.7 per cent of total donor base with only some 6,475 donors and 55 per cent of them were aged between 41 to 65 years thus explaining its non-availability at all times. I am informed that requests for negative recipients were very erratic but the NBTS endeavours to maintain a minimum stock of negative blood groups;
* *Donors’ gender and ageing analysis -* Female blood donors accounted for only
17 per cent of the total donor base. Despite having a greater female population, no specific strategy was seen formulated to canvass female donors. Further, over 55 per cent of all donors were aged 41 to 65 while donors in the age bracket 17 to 20 were less than 1 per cent. No targeted strategy was seen for teens and the young generation.

***10.6.6 Blood Collection Costs and Efficiencies - Rs 37 million***

Some 42,000 blood units were collected in 2016-17 at fixed sites (20 per cent) and at mobile sites (80 per cent). Some 45 staff were involved together with some
300 organizations to mobilise donors. The cost of collecting the yearly blood donations was not available at the NBTS but an estimation thereof amounted to some
Rs 37 million per year. Many asymmetric practices were also noted concerning blood donations/ donors that adversely impacted on the cost effectiveness of the services of the NBTS.

*Collection efficiencies -*Low collection rates were noted for blood collection drives organized by the NBTS at fixed sites. An average of 3 to 11 blood units were collected per day at regional hospitals. For its mobile collections, an average of 16 units of blood being collected per drive as compared to some 59 units collected per drive for non-NBTS organisers. Atypically, blood drives conducted in Port Louis resulted in the lowest average of 12 collections per blood drive for the 113 events conducted.

***Ministry’s Reply***

NBTS normally organises blood donations at public places during week days and motivation activity is done on site, whereas week-ends donations are planned much in advance, hence the discrepancy in the blood collection rates.

*NBTS targeting approach for organisers and donor segments -* The targeting profile of the NBTS was examined and overall, it was observed that the NBTS did not have a structured approach towards the targeting of blood organizers and donor segments.For 2016-17, 302 organisers responded out of 1,055 contacted (29 per cent response rate only) with some 27,000 blood units collected*.* No formal and targeted strategy was also seen for the NBTS to reactivate former donors. Over the last 10 years, some 56 per cent of all donors had given blood only once in their life. A yearly repeat donation was not high as for any year a donor gave on average 1.14 times only.

***10.6.7 Production of Blood Products and Discards - Rs 112.5 million in 2016-17***

A dedicated unit at the NBTS is in place for the production of blood components. Typically, two or three of blood components were produced from a pint of donated whole blood if the blood freshly collected has been processed within eight hours. For 2016-17, some 95,100 blood components are produced and a significant proportion were discarded and which potentially could have been avoided. A certain level of discards of blood was both inevitable and appropriate such as the discard of infected blood. However, some 18,000 units of plasma were discarded as the MOHQL had no protocol/ policy for the fractionation of plasma.

***10.6.8 Organising the Laboratory Staffing Structures as per PRB Recommendations***

The laboratory services were manned by some 400 staff working at 12 sites that had to work beyond their normal working times to provide a 24-hour service during nights, weekends and public holidays. In total there were 12 rosters to run the emergency services at the five regional hospitals and it was observed that the staff organisation structures as governed by the PRB were not operating optimally.

* *Implementation of PRB recommendations -*The PRB 2016 recommendations included the payment of hourly allowances pending the implementation of a shift system for staff working on emergency rosters. It also recommended the running of a bank scheme for retired Medical Laboratory Technologists and persons outside the service, to palliate for manpower shortages/burnout. The Ministry partly implemented the recommendations as only hourly allowances were being paid for emergency services. The preparedness of the Ministry to implement the shift system could not be ascertained. The bank of retired and experienced technologists was not constituted as at time of audit.
* *Financial implications of operating the emergency services for the Central Health Laboratory (CHL)/ NBTS -* Total staff costs for the CHL and the NBTS were not readily available and were compiled from payroll records for some 330 CHL staff.. Staff costs amounted to some Rs 230 million including Rs 52 million for 100 NBTS staff. Financial implications to operate the emergency rosters in the NBTS and the CHL were significant. For the CHL, some Rs 46 million (some 20 per cent of total staff costs) were paid as hourly allowances for working outside normal hours, with NBTS. Had the Shift system been implemented, some Rs 46 million could potentially be saved yearly.

***10.6.9 Use of Blood in Hospitals***

Requests for blood transfusion procedures were triggered by treating doctors and followed clinical protocols. Two important structures were put in place at the Ministry to address the above namely the Haemovigilance and the Hospital Transfusion Committees (HTC).

* *Hospital Transfusion Committees and transfusion protocols -*The Hospital Transfusion Committees (HTC) mainly addressed issues related to the implementation of a national policy and guidelines on rational use of blood in hospitals while the former aimed to monitor and improve the safety of the transfusion process. Both structures were not operating optimally. The HTC at Victoria Hospital did not meet in the year 2017. Thus, little assurance was obtained whether the blood was used as per medical standards;
* *Smoothing blood supply and demand requirements -*In view of the blood availability constraints and the fluctuated demands, both the NBTS and users needed to smoothen their supply and demand pulls by adopting responsible communication and usage protocols to synchronise blood availability group wise. This was not always done;
* The total blood required for the year and the types most needed were not scientifically determined as the actual and future hospital needs were not quantified. Blood Stock information was also inadequate as blood stocks were compiled manually with no mechanism to know the blood stock at any time;
* Recurrent blood shortages were seen in specific periods and for specific blood products namely platelets and negative blood groups. Cancer patients required transfusion of platelets which had a short shelf life andwere not always available for transfusion. Records for platelets requests and supply for the period June to August 2017 showed that 43 per cent of all requests could not be fully met with
21 per cent not met at all;
* *Blood transfusion practice in hospitals -* A sample of 12 cases of blood transfusion requests and their corresponding medical procedures was followed up in their respective patients’ files. It was noted that same was not done according to established procedures. Continuous patients history sheets for seven cases out of the 12
(58 per cent) were not properly filled in to evidence the transfusion of the blood products. Prior to blood transfusion, there was also a requirement to seek the consent of the patient. For nine out of the 12 cases, no consent forms were seen (75 per cent). Patients’ involvement/ consent were vital medico legal documents for any litigation. One transfused patient experienced a transfusion reaction butcontrary to established protocol, this reaction was not notified to the NBTS for further investigation;
* *Medico legal litigations -*Blood donation and transfusion procedures were inherently risky due to clinical risks for patients and legal, reputational and financial risks for the Ministry. The Ministry did not have a structured mechanism in place to record, analyse and settle all types of medico legal litigations. The extent of medico legal litigations arising from blood transfusion and other claims of negligence was further enquired from the Solicitor General but as of 12 January 2018, no reply was received.

***Recommendation***

The Ministry must review the legislative framework and formulate a blood policy. The MOHQL should also consider adopting a strategic approach towards blood management processes including blood collection, production of blood components and their waste minimisation (e.g. avoiding plasma discards by resorting to plasma fractionation). Structures such as Haemovigilance and Hospital Transfusion Committees need to be strengthened to regulate the rational use of blood in hospital through standards/ clinical protocols and patient involvement to avoid medico legal litigations. The Ministry must also review its sensitisation campaigns across the island, especially among the student population.Finally work structures need reorganisation especially for the implementation of the shift system which might potentially cut staff costs.

**10.7 Equipment Acquired for the New Cardiac Centre at Victoria Hospital**

Until the beginning of 2017, cardiac surgeries were carried out only at the Trust Fund for Specialised Medical Care (TFSMC) located at Pamplemousses resulting in long waiting list and cancellation of cardiac surgeries. In January 2015, the Ministry of Health & Quality of Life (MoHQL) proposed to set up a second Cardiac Centre at the Victoria Hospital. Since January 2016, the ground floor of the New Operation Complex at Victoria Hospital was allocated to the TFSMC and procurement procedures for medical equipment started thereafter by the MoHQL on a fast track basis. Shortcomings were noted in the taking over of infrastructure and the acquisition of the equipment to be used at new Centre.

***10.7.1 Operational Status of the New Cardiac Centre***

The new Centre became operational on 12 January 2017, that is, two years after the policy decision to have another cardiac centre. However, on 22 February 2017, after carrying out only 26 cardiac surgeries, the TFSMC was compelled to discontinue its activities due to various infrastructural problems. As a result, the contract of a foreign Doctor who was operating at the TFSMC Victoria Hospital was terminated in April 2017. It was not until mid-September 2017 that cardiac surgeries resumed at the Centre when another foreign Doctor was recruited. As at mid-November 2017, it was not known whether all the problems had been rectified, as I was informed that on some occasions, operations had been cancelled due to infrastructural problems.

I was also informed that as at mid-November 2017, all the infrastructural problems were resolved.

***10.7.2 Infrastructure and Assets Ownership***

As at end of October 2017, contrary to the assurances provided by the Ministry following my Report for 18-month period 1 January 2015 to 30 June 2016, the agreement setting out the terms and conditions for the allocation of space/ infrastructure to TFSMC at Victoria Hospital was still not signed. Further, the assets/medical equipment acquired by the Ministry were also not transferred to TFSMC.

***10.7.3 Planning for the Purchase of Equipment for the New Cardiac Centre***

Most of the medical equipment of the new Centre was purchased by the MoHQL despite not being initially budgeted and not included in the priority list of equipment to be acquired for hospitals totalling some Rs 277 million. About Rs 260.9 million were spent by the Ministry to acquire all medical equipment for hospitals (including TFSMC’s equipment needs) based on the revised budget of Rs 261 million, resulting in some priority equipment needed by hospitals not being purchased.

***10.7.4 Compliance with Procurement Procedures- General Observations***

On 15 February 2016, decision was taken for the Cardiac Centre to finalise specifications in relation to medical equipment required and fast track measures were to be adopted for procurement once specifications were received. Specifications were prepared by staff of the Cardiac Centre together with the Bio-Medical Engineering Section or Surgical Technologist workshop or Energy Services Division (ESD) depending on the equipment concerned. The list of specifications for 38 medical equipment estimated at
Rs 60.7 million was submitted to the Ministry and tenders of the equipment were launched in three lots in April/ May 2016. Despite carrying out the procurement procedures and paying out of the Ministry’s budget, the MOHQL failed to comply with established procurement procedures. Failure to follow proper procedures was even acknowledged by the staff of the MOHQL and members of the TFSMC. Records and documents regarding cost estimation and specification of equipment revealed that end users often submitted incorrect specifications and cost estimates that were unrealistic.

*Estimated Cost of Medical Equipment*

Cost estimate determination was not reliable. The first list of specifications of medical equipment was submitted to the Ministry on 14 March 2016 with an estimated cost of
Rs 50 million to be further revised to Rs 60,662,000 without maintenance costs. Variations to cost estimates of the equipment had to be within a limit of 25 per cent but various items of equipment were acquired where the deviation between actual and estimated cost were around 80 per cent. Nevertheless, the supplier was not contacted for additional information as provided in of the Public Procurement Act.

*Preparation of Specifications and Composition of the Evaluation Team*

Specifications for the equipment were not always properly prepared. Most of the evaluators were also responsible for writing the specifications of the equipment to be acquired. Bids were not evaluated by qualified persons contrary to the Public Procurement Regulations stating that the Bid Evaluation Committee shall be composed of members who are knowledgeable about the goods or services. The provisions of the evaluation guide issued by the Procurement Policy Office (PPO) were not followed by the evaluators.

***10.7.5 Contract Implementation***

Although fast track measures were taken to acquire the equipment, some of the equipment were received about one year after launching of tender and some put into use after more than 16 months after launching of tender. It could not be determined whether value for money was obtained for the equipment purchased as warranty periods might have lapsed with the medical equipment still not yet put to test. Also, the Ministry did not ensure that all deliverables as per the bidding documents were provided prior to effecting payment, for example number of days and staff to be trained.

***10.7.6 Evaluation***

The bids were evaluated in July 2016 by the staff of the TFSMC and the following were noted:

* The Biomedical and Surgical equipment were evaluated in the absence of a
Bio-Medical Engineer or a Technician or Surgical Technologist, whereas, for ESD equipment estimated at Rs 1,430,000, one Surgical Technologist acted as member and secretary;
* Detailed workings of the technical evaluation were not available to ascertain whether all technical specifications had been complied with. Further, documents to assess the financial and technical capacity and experience and qualification requirements of the bidder, as well as evidence that the goods offered met certain requirements were not listed in the bidding documents. Thus, there was no evidence that important criteria for post-qualification were considered prior to award of tenders;
* The bids received were not properly secured. Several copies were made but none of the original bids could be traced. One bid submission form was not signed and the bid was not rejected. In another case, the seal of the bidder on the bidding document was different from the name of the bidder.

In fact, on 3 January 2017, the Biomedical Engineer pointed out that acquisition of other equipment also did not meet specifications and conditions laid down in the bidding documents.

***10.7.7 Other Specific Audit Observations***

*Supply, Installation and Commissioning of Medical Equipment*

Tender for 24 Bio-Medical Equipment was launched on 3 May 2016 and the closing date was 8 June 2016. It was reported that the Departmental Bid Committee (DBC) did not agree with the financial instructions regarding vetting of the bidding documents as these had to be done by the professionals in the Procurement Unit. During a meeting held on
11 September 2017, the Biomedical Engineer pointed out some flaws in the procurement of the medical equipment for the TFSMC as listed below:

* Soft copies of specifications were available to various officers, which indicated lack of security and confidentiality;
* The criteria/qualifications to act as evaluators were not set up by the Ministry;
* Officers of the Procurement Unit making changes in specifications and challenging officers preparing the specifications;

Prior to effecting payments, the Ministry did not ensure that suppliers had fulfilled all conditions attached to the bid submitted.

*Two Upper End Latest Generation Transoesophaged Echocardiograph–Rs 22,548,040*

On 23 September 2016, an order for two units Upper End Latest Generation Transoesophaged Echocardiograph (Adult and Paediatric Probes) was issued to Company A for the total cost of Rs 22,548,040 (inclusive of maintenance cost). The two units were delivered on 17 November and 15 December 2016 respectively.

* In November 2017 the above equipment was in use but was not commissioned. One Cardiologist and one staff of the ESD signed the Commissioning Certificate which remained incomplete without the Biomedical Engineer and the TFSMC Director signatures;
* It was after some seven months of delivery of the equipment that it was discovered that the paediatric probe delivered did not comply with technical specification required as it could not be used on low weight babies of less than 2.5 kg. The supplier was unwilling to supply the paediatric probe to complete the commissioning procedures as they opined that the Letter of Award issued to them constituted a binding agreement between the two parties and that all Cardiologists were fully satisfied with the units and had signed off the acceptance certificate upon completion of the training programme which was held during the period 19 to 23 December 2016;
* On 22 September 2017, the Ministry concurred that Company A Ltd could not be held responsible as it did propose the offer without the paediatric probe. The Bid Evaluation Committee (BEC) members agreed that they had “evaluated the equipment to their capacity, the shortcoming was made through oversight”. This is not satisfactory. On 26 September 2017, three members who participated in the BEC proposed the procurement of a paediatric TEE for low body weight babies. The Biomedical Engineer also pointed out that the paediatric probe not supplied would cost an additional Rs 1 million.

*Heart Lung Machines – Rs 18,045,828*

The Letter of Acceptance for two heart lung machines totalling Rs 18,045,828, inclusive of maintenance charges with one year warranty, was issued to Company B on
9 September 2016.

* The initial estimated cost of each machine was Rs 3 million but just before the submission of the Bid Evaluation Report, an official from TFSMC, not in the Bid Evaluation Committee, informed the Ministry that the estimated cost was incorrect and should have been Rs 6 million. Confidential bidding information was apparently leaked before the publication of the award of the contract. Further, there was no approval for the revised estimated cost of Rs 6 million. The tender was awarded for Rs 7,422,914 each;
* The four years maintenance charges submitted by the successful bidder instead of five years as required, was considered as a minor deviation. The bidder did not indicate whether it complied with that specification. However, the bid of another company, amounting to Rs 15,471,050, was rejected on the ground that it did not comply with one technical specification;
* The two heart lung machines were delivered on 27 October 2016. One of them was commissioned on 10 January and the other on 3 March 2017 when the Centre was not operational. Since the Centre was not operational from 22 February to mid-September 2017, the warranty period for both units of equipment was effectively reduced to some five/six months. Also, there was no evidence that training was provided.

*Other Issues*

* A complete list of all equipment issued to the Cardiac Centre was not available at the Ministry;
* On 23 September 2016, Company A was awarded the contract to supply a stress test machine for the sum of Rs 738,300. The machine was delivered on 22 December 2016 and was commissioned on 15 May 2017. At the beginning of October 2017, the stress test machine had not yet been put to use. Further, not all compliance of specifications offered were filled in by the bidder and training was provided to one Doctor on one day only instead of three days application training to users as per bidding document.

I was informed that in October 2017, the machine was not put to use, as there was no out-patient session at Victoria Hospital.

***Recommendation***

Proper procurement procedures should be followed to ensure probity in the procurement system. Specifications setting and cost estimation need to be more reliable. Bids should be evaluated by qualified persons who were not involved with the specifications setting process. The evaluators should consider the use of the evaluation guide issued by the PPO.

Contract implementation must be diligently followed to ensure that Government obtain value for money from the equipment acquired.

**10.8 Medical Equipment**

Medical Equipment (ME) is increasingly important for the provision of health services and its significance is set to grow, geared by technological and clinical innovations. Medical equipment is technically complex, requiring specialist expertise to use, manage, assess and repair. From January 2010 to June 2017, the Ministry spent some
Rs 1.14 billion on acquisition of medical equipment and about Rs 490.4 million on its repairs and maintenance. Availability at all times of well-maintained and safe medical equipment is critical for the health services.

However, it was generally noted that control and maintenance of the ME were not always optimal.

***10.8.1 Control over Medical Equipment at Ministry’s level***

The Ministry did not have a comprehensive and an updated register of all ME for all service delivery points. The responsibility of keeping a database of ME rested with three Units, that is, the Biomedical Engineer/Technician, Surgical Technologist and Energy Service Division (ESD) at each hospital. However, detailed lists of medical equipment maintained by the three Units posted at the different hospitals were either not available or not up-to-date and it was not always known which specific ME fell under which category and whose responsibility among these three units. The absence of asset details restricted planning and control functions.

***10.8.2 Control over ME at Government Level- Physical Assets Management System/Government Asset Register (GAR)***

A Physical Assets Management System (PAMS) went live in November 2013 to register electronically all assets belonging to Government. Despite being one of the Ministries selected for the development, testing and implementation of the system, the MoHQL failed to do so.

It was announced in the Budget Speech 2016-17 that Government would develop an Asset Register across all the Ministries and Departments which would be under the management of the Treasury. On 31 July 2017, the Treasury informed the Supervising Officers/ Officers in charge of Ministries/Departments that the Finance Sections could start capturing data/recording details of assets as from 14 August 2017 with entries of previously acquired assets to be posted by the Office Management Executives (OME).

Although staff of the Finance Section and OMEs have already obtained on-line access and training on how to use the PAMS, site visits effected in October 2017 at the various hospitals revealed that no entries were yet input in the PAMS as the Ministry has not issued guidelines to ensure standardisation of input after the circular from the Accountant General was received.

***10.8.3 Maintenance of Equipment***

Maintenance of ME is imperative for the proper functioning of the equipment ensuring that patients get the best and on-time treatment. Every hospital was responsible for the maintenance of its equipment through different arrangements, both in house and outsourced maintenance. The Bio-Medical Engineering, Surgical Technologist and ESD, as well as contractors provided the primary contact for users in case of any problem with the ME.

On 9 July 2014, the Ministry was made aware by a resident Project Manager that it had a weak Biomedical Engineering Section so that the MoHQL had to rely heavily, and sometimes totally on contractors for maintenance and that the Ministry did not get value for money due to the frequency and duration in the breakdown of several ME. In 2017, a shortage of qualified maintenance staff was again noted at Hospital level as there were six vacancies in the Biomedical Engineering Cadre as at March 2017 and Victoria Hospital was operating without a Surgical Technologist. Hence, preventive maintenance was not being carried out.

***Recommendations***

* The Ministry must exercise stewardship over its costly base of ME by carrying out a full inventory thereof and adhere to the requirements of the GAR;
* Maintenance of ME, including preventive maintenance, is essential for delivering optimal health services to the public. In house units must be adequately and appropriately staffed with well-defined and clear roles and responsibilities;
* The attention of the Regional Health Director is being drawn on the need to compile a single list of all medical equipment in the respective hospitals;
* Necessary instructions should also be given so that entries are input in the PAMS at Hospital level.

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