



Department Wise OPD and Diagnostic Statistics 2020 Along With the Trend of Mortality, Postmortem and Medicolegal Cases Managed at District Head Quarters Hospital Rawalpindi Pakistan

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Abstract

Objectives: To determine the department wise outpatient and diagnostic statistics 2020 in addition to the trend of mortality, autopsies and medico legal issues catered at DHQ Hospital amidst COVID pandemic.

Materials and methods: A cross-sectional hospital record data-based descriptive study was carried out to measure the frequency of OPD cases treated along with the diagnostics (laboratory tests, ultrasounds, X-rays & CT scans) at DHQ Hospital during 2020. In addition, the data pertinent to mortality, medico legal cases and autopsies dealt with at DHQ hospital was also retrieved from hospital administrators after getting informed consent. The data was analysed by means of Microsoft Excel 2010 software.

Results: Number of general out patients began to decline in March 2020, then suddenly raised in September 2020. However emergency cases did not rise abruptly throughout the year. Most of the cases were reported in Medicine, Gynaecology & Obstetrics and Paediatrics OPD. Patients were subjected maximally to X-rays for diagnosis of their health disorders while CT-scans and ultrasounds were minimally accomplished during 2020. In addition to mortality, execution of autopsies and handling of medico legal cases was also determined to be at the routine pace.

Conclusion: The burden on healthcare resources of DHQ hospital in response to COVID pandemic was quite negligible.

Keywords: Diagnostics; Mortality; Post-mortem; Medicolegal; Outpatient

Introduction

Hospitals constitute a very indispensable unit of a community [1]. Apart from provision of primary healthcare services, referral facilities are also made freely available to the patients in public sector healthcare settings [2]. Although life expectancy differs extensively within and across the countries, yet it has substantially been escalated than that was reported in 1900. Health inequality has considerably been declined across the world [3]. Health expectancy in the past few decades has primarily been increased due to advancement in technology and accessibility to better treatment opportunities [4]. Out-patients services in hospitals of

developing countries are determined to be considerably utilized, even these services are known to consume about 23% of the budget dispensed to any hospital for healthcare [5,6]. Laboratory testing of any healthcare center are of profound significance in making an accurate diagnosis and managing the patients [7]. The significance of radiological investigations in monitoring the healthcare and predicting the health outcome cannot be neglected [8]. Radiological and laboratory testing amenities should conveniently be made available at all levels of healthcare delivery for appropriate diagnosis and prompt healthcare management of the patients [9]. Medicolegal intricacies should adequately be known

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to all doctors as law is equally applicable to healthcare professionals working in both public and private healthcare settings [10]. Post-mortem examinations of the dead bodies to verify the cause of death is also an aspect that is to be sufficiently addressed in tertiary level healthcare centers by our doctors [11]. The trend of autopsies in developed nations has substantially been declined due to advanced imaging facilities and availability of national citizen databases; however underdeveloped nations are ignorant of their rights to know the cause of death [12,13]. Most epidemiological studies nowadays begin with mortality statistics as it has become feasible to retrieve valid data due to Health Management Information System (HMIS). Being a vital statistic, mortality indicators direct the attention of policy makers towards prevailing health problems that in turn aids the regulatory authorities in monitoring and surveillance [14]. The present study is planned to determine the frequency of outpatient and diagnostic services made available to the patients in addition to management of medicolegal cases and conduction of post-mortem during 2020 at DHQ Hospital. This study apart from assessing the workload of the hospital will also serve as food for thought to our strategic planners for adequate allocation of healthcare resources.

Materials and Methods

A cross-sectional hospital data-based study was done to perceive the frequency of OPD cases managed along with the investigations (laboratory tests, ultrasounds, X-rays & CT scans) done at DHQ Hospital during 2020. DHQ Hospital is tertiary care healthcare facility. It is one of the teaching hospitals affiliated with Rawalpindi Medical University for facilitation of undergraduate and postgraduate medical teaching. Being situated in the center of Rawalpindi city, this hospital also serves as referral center for traumatized patients [15]. In addition, the data pertinent to mortality, medicolegal cases handled and autopsies carried out at DHQ hospital was also retrieved from hospital administrators after getting informed consent. The data was analysed by means of Microsoft Excel 2010 software.

Results

Trend of cases managed in General OPD in comparison with Accident & Emergency OPD (Figure 1-6).

Discussion

Delivering the quality healthcare services is one of the fundamental requisites for universal health coverage, however availability and accessibility being the principles of primary health care are also imperative although insufficient to conform the provision of standard care [16,17]. After managing the highest emergency patient load during January and February 2020, their maximum propensity was dealt with in Accident & Emergency OPD in

September 2020. On the other hand, the frequency of the patients treated in General OPD remained almost at the same pace throughout the year as illustrated in Figure 1.

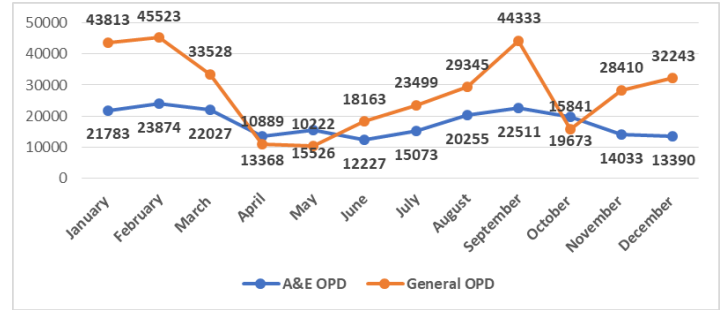


Figure 1: OPD statistics 2020 at DHQ hospital.

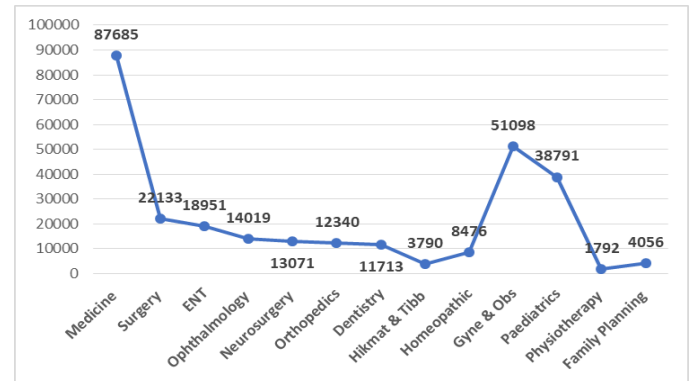


Figure 2: Department wise OPD Statistics 2020 of DHQ Hospital.

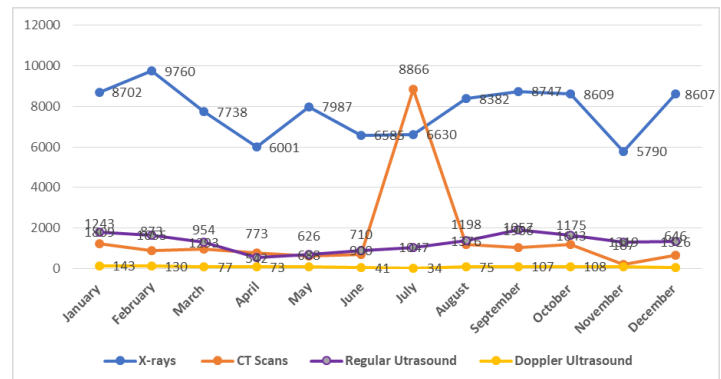


Figure 3: Statistics of diagnostics 2020 of DHQ hospital.

Emergency departments of most of the world-wide regions were on high alert on detection of first COVID-19 case in Wuhan during December 2019. All healthcare professionals being the frontline warriors were warned for strict adherence to protective measures for their protection [18]. COVID pandemic has made the role of Emergency department of healthcare institutes in managing the outbreaks and disasters quite eminent. Apart from dealing with routine emergency cases, staff of emergency department working in a tertiary hospital of Singapore handled around 800 COVID-19 cases as well [19]. In addition to increased work load, our health workforce also faced the risk of getting infected; the dedication of

our healthcare professionals toward their duty and sincerity with the humans for their well-being is really commendable. The current study revealed the greatest magnitude of patients catered by Medicine OPD followed by those in Gynecology & Obstetrics and Paediatrics OPD. However, operations at DHQ hospital seemed to be quite declined or postponed amidst COVID pandemic as portrayed in Figure 2. Similarly approximately 28 million worldwide elective surgeries were reported to be deferred during peak emergence of COVID-19 cases during 2020. Even the resultant backlog was found to take around 45 weeks for settlement [20]. According to a predictive model, experts estimated the cancellation of 81.7%, 37.7% and 25.4% of operations for benign conditions, malignancies and elective caesarean sections respectively [21]. Similar study by Metelmann IB et al to scrutinize the impact of COVID-19 on delay in general, thoracic, vascular and visceral surgeries in two University hospitals of West did not reveal any grave health outcomes in response to delay in operation; however postponement of surgery seemed to arrest the occurrence of hospital acquired infections among the patients [22]. The patients suffering from benign diseases may most probably suffer due to further delay in their operations, as even after resumption of surgical management on reduction in COVID-19 cases the management of critical patients are most likely to be prioritized for healthcare provision. The present study manifested the continuation in routine diagnosis of the patient through X-rays; however occurrence of other investigations among patients of DHQ hospital amidst COVID pandemic seemed to be at low pace. Only ultrasonographies were carried out in greatest magnitude during July 2020.

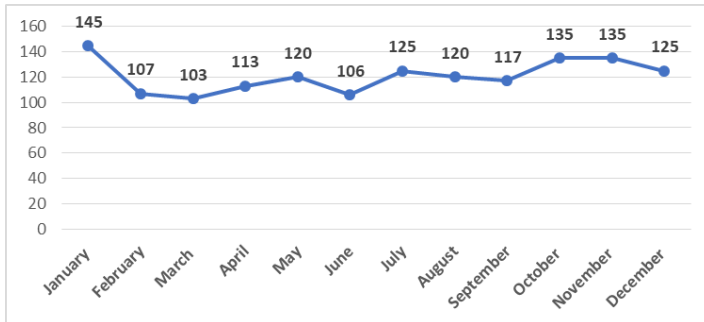


Figure 4: Trend of Mortality during 2020 at DHQ Hospital Rawalpindi.

One of the reasons for reporting diminished investigations during 2020 was restricted admission of non-critical patients to the hospitals. Likewise, admissions in a University hospital of Germany were considerably declined with lockdown imposition in response to COVID-19 and minimal investigations during this interval were attributed to this globally afflicted scenario [23]. As our healthcare professionals were confronted with mega challenge of managing the COVID-19 patients due to novelty of this disease; limiting the access of non-critical patients to the hospitals during this distressing state was one of the means for protection and safety

of our frontline warriors, patients and the community. The highest number (145) of deaths in our study was reported during January 2020 that was before the arrival of coronavirus in Pakistan. However with occurrence of COVID-19 cases in Pakistan from March 2020, the fatalities did not significantly surpassed as depicted in Figure 4. The first wave of COVID pandemic resulted in grave healthcare outcomes particular in United States, Italy and Spain while prompt diminution in effective Reproduction number to 0.746 in Pakistan was primarily due to strict lockdown imposition in April 2020 and strict compliance to SOPs mainly by our healthcare workforce [24,25].

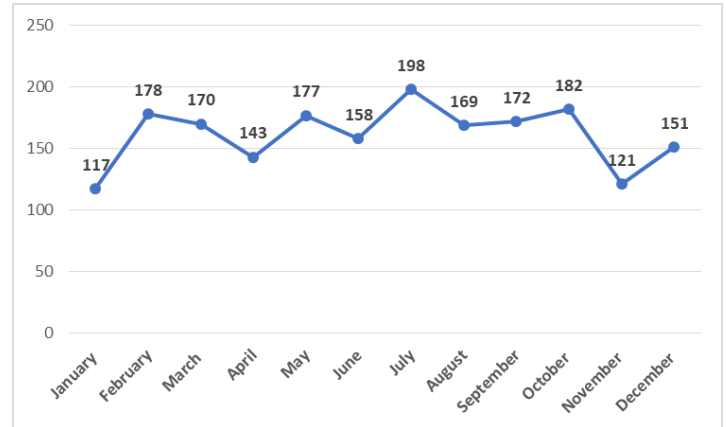


Figure 5: Trend of Medicolegal cases handled at DHQ Hospital during 2020.

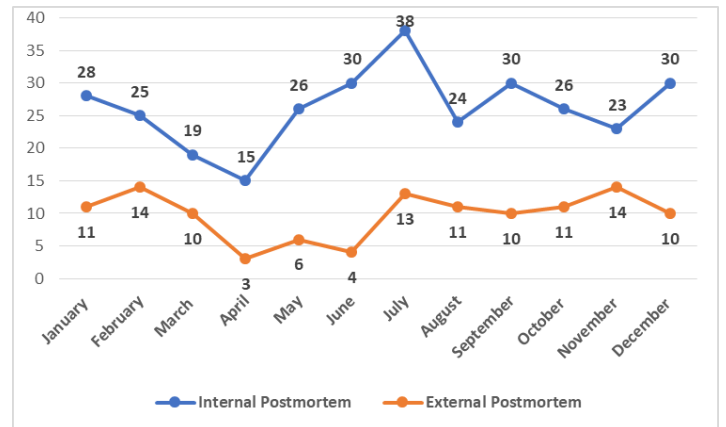


Figure 6: Internal and external postmortem statistics 2020 at DHQ Hospital.

One of the reasons for not reporting excessive deaths at DHQ hospital was vigilant instructions to the gazetted and non-gazetted staff of the medical universities as well as those of non-medical organizations to attend their offices alternatively and continuation of their official work at their homes [26,27]. Even the elders (above 50 years of age) were allowed to work from home amidst COVID pandemic as they were more prone to infection due to poor immunity. Autopsies and medicolegal cases were routinely managed at DHQ hospital amidst COVID pandemic. This was in

contrast to other Asian countries where army was called for help regarding burial of dead bodies [27]. One of the reasons for registration of relatively minimal deaths at DHQ hospital than those reported worldwide was non-declaration of DHQ hospital as COVID-19 hospital [28]. In addition to provide tertiary healthcare services to the populates of inner Rawalpindi, DHQ Hospital is also designated as teaching hospital for undergraduate as well postgraduate medical education. These attributes also make this hospital as playing a pivotal role in healthcare management.

Conclusion and Recommendations

Reporting of routine OPD cases and continuation of investigations apart from handling of medicolegal issues at DHQ hospital amidst COVID pandemic was quite normal. The workload on healthcare services can further be minimized in future also by strict adherence to precautionary measures.

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