



Comparing the Diagnostic and Therapeutic Services of Benazir Bhutto Hospital Rawalpindi during 3 Years Span: 2018-2020

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Abstract

Objectives: To compare the provision of investigative and curative healthcare services of Benazir Bhutto Hospital Rawalpindi during 2018-2020.

Materials and methods: A cross-sectional hospital record based comparative study was done to compare and analyze the frequency of diagnostic and therapeutic healthcare facilities utilized for healthcare of the general public who visited Benazir Bhutto Hospital (BBH) during interval of 2018-2020. Data was collected from administrators of BBH through informed consent. The diagnostic data was gathered regarding the magnitude of X-rays, ultrasounds, laboratory tests, ECGs, echocardiography's and endoscopies. The therapeutic data was collected about the number of babies delivered, surgeries, physiotherapy and dialysis. The data was analysed by Microsoft Excel 2010 software.

Results: About 11,98,288 laboratory tests were done during 2019 that constituted the highest frequency than those conducted during 2018 and 2020. Likewise 1,70,185 X-rays and 79,291 ultrasonography's carried out during 2019 comprised the greatest magnitude of diagnostics as compared to those of 2018 and 2020. Most (1760) endoscopies and 4947 echocardiographies were reported during 2018 and 2019 respectively. Most of the major and minor surgeries in addition to newborn deliveries and dialysis were also registered during 2019.

Conclusion: Benazir Bhutto Hospital being a tertiary healthcare facility of Rawalpindi city is catering the greatest catchment area population.

Keywords: Diagnostic; Therapeutic; Endoscopies; Surgeries; Laboratory tests; Ultrasounds

Introduction

The provision of high standard and cost-effective healthcare across the globe has become quite arduous. Numerous studies have been carried out to analyse the health system with an intention to assess the availability, accessibility, acceptability and affordability of healthcare services by the public [1]. Apart from scrutinizing the quality of healthcare from viewpoint of patients' convenience and improvement of healthcare indicators, healthcare services delivery by any healthcare facility in terms of adequacy of diagnostic and curative amenities is of paramount significance [2]. The rationale

behind planning health services research is to improve the healthcare delivery in the community [3]. Performance of health system in terms of enhanced healthcare facilities and improvement of healthcare indicators can aptly be assessed by its evaluation. Healthy people 2020 is versioned to provide high quality healthcare to the population, to improve longevity and to get rid of preventable diseases, injury and disabilities [4]. Healthcare delivery system of any region is meant to ensure the fulfilment of healthcare needs of the community by involving the concerned personnel and utilizing the available logistics and capitals [5]. Adequate functioning of healthcare systems is profoundly

necessitated for accomplishment of universal healthcare coverage [6]. Pakistan was known for lack of Health Management Information System (HMIS) in public sector healthcare settings for record maintenance a few decades ago [7]. Effectiveness and efficiency of healthcare system primarily in developing countries like Pakistan also need to be addressed in the goodwill of its populates [8]. Input of our healthcare professionals and policy makers apart from feedback of the end users can facilitate a great deal towards progression of current distressing scenario [9]. Great initiatives were taken for up gradation of healthcare services, installation of HMIS and expansion of teaching hospitals affiliated with Rawalpindi Medical University from 2013 to ensure provision of multidisciplinary healthcare to the common people of the society under one roof [10]. One of the prime objectives of health services research is to inform policy makers about the existing situation that in turn provoke them to take necessary initiatives [11]. The present study is therefore intended to compare the delivery of diagnostic and curative healthcare services to the public of Rawalpindi district during 3 years duration (2018-2020). The results of this survey would facilitate our strategic planners in perceiving the magnitude of patient load in public sector tertiary healthcare facilities and hence would enable them to take essential steps for appropriate management of cases.

Materials and Methods

A cross-sectional hospital data based comparative study was done to compare and analyze the proportion of diagnostic and therapeutic healthcare services provided for well-being of the general public who visited Benazir Bhutto Hospital (BBH) during 2018-2020. Data was collected from hospital administrators after getting informed consent. The diagnostic data was gathered regarding the number of X-rays, ultrasounds, pathological tests, ECGs, echocardiographies and endoscopies. The curative data was collected about the number newborns delivered, both major and minor surgical procedures, physiotherapy and dialysis. The data analysis was done by means of Microsoft Excel 2010 software.

Results

The frequency of diverse radiological and pathological tests done from 2018-2020 at BBH were compared as depicted (Figure 1,2). About 4813, 4947 and 2505 ECGs were done at BBH during 2018, 2019 and 2020 respectively. Only 751 endoscopies and 2505 echocardiographies were done for diagnosis during 2020 that was comparatively less in propensity as illustrated (Figure 3-5). Being a tertiary care hospital and having affiliation with Rawalpindi Medical University facilities for physiotherapy and dialysis of the needy people were also available at BBH. The propensity of the approximation of our population to these approaches is revealed (Figure 6).

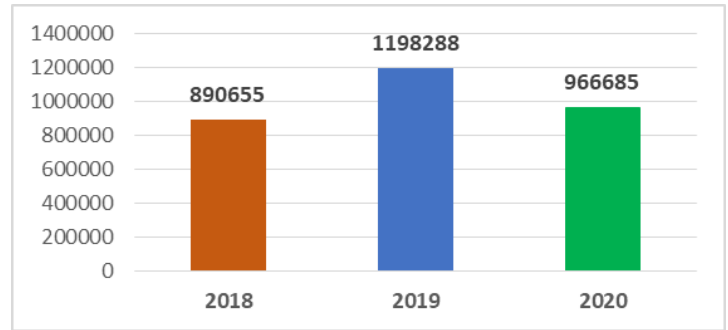


Figure 1: Laboratory tests done at BBH (2018-2020).

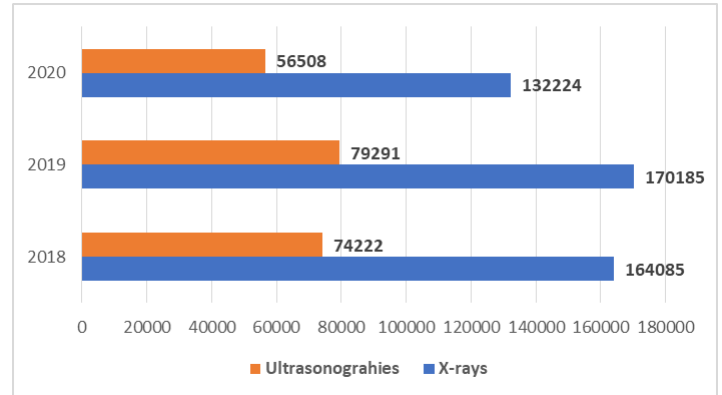


Figure 2: Comparing the X-rays & Ultrasonographic frequencies from 2018 to 2020.

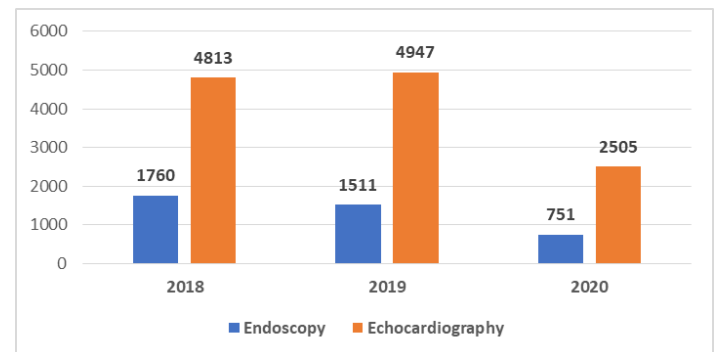


Figure 3: Comparison of the magnitude of endoscopies & echocardiographies at BBH.

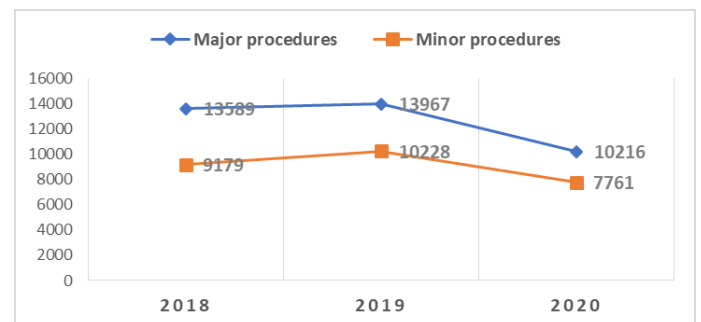


Figure 4: Density of Surgeries at BBH during 2018-2020.

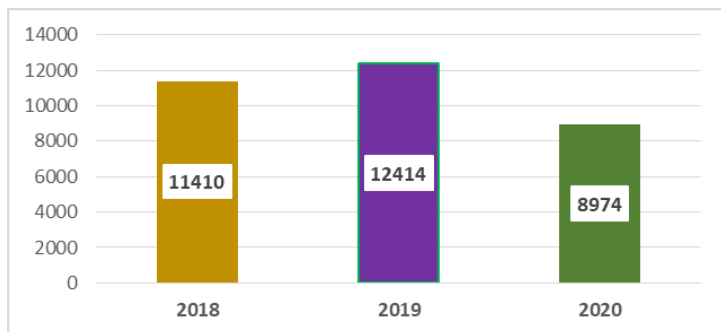


Figure 5: Comparison of deliveries during 3 years interval at BBH.

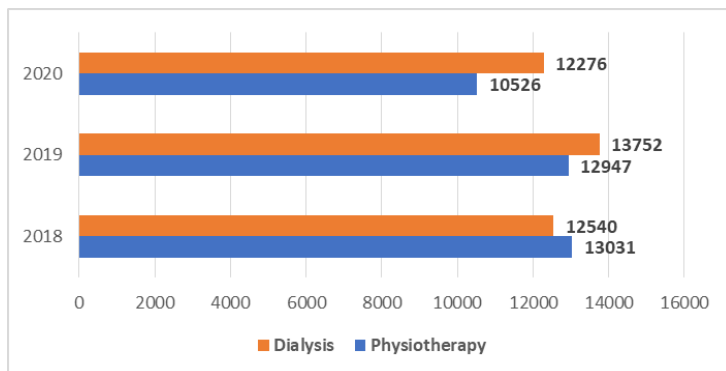


Figure 6: Physiotherapies and dialysis at BBH during 3 years span.

Discussion

Access to quality healthcare services by all people and communities of any region is one of the means to ensure achievement of universal health coverage and also a hope towards accomplishment of Sustainable Development Goals (SDGs). Promoting Evidence Based Medicine (EBM) and placement of adequate infrastructure for confirmatory diagnosis and swift cure of the public is imperative to improve healthcare indicators of a country [12]. Although our people in government hospitals are receiving healthcare without facing financial catastrophe, but attaining the optimum standard of healthcare is the fundamental right of every citizen.

In current study, laboratory testing facilities in addition to radiological services were analysed during 3 years tenure (2018-2020). This study was basically meant to assess the magnitude of healthcare problems catered through provision of sufficient diagnostic opportunities to the common people and henceforth their facilitation towards securing pertinent healthcare. Radiological and pathological services constitute the core of healthcare amenities available at any tertiary care facility [13]. Surgical and allied, medical and allied, obstetrical, aesthetic and above all ophthalmological departments cannot make any suggest any operation or procedure without procuring the complete biochemical profile and radiographic reports of any patient. In our study, laboratory testing, X-rays and ultrasonographies were found

to be relatively in greater magnitude during 2018 and 2019 than those carried out in 2020. This difference might be the lockdown imposition during April 2020 as a result of COVID pandemic and shut down some of the departments and conversion of Benazir Bhutto Hospital (BBH) and Rawalpindi Institute of Urology and Transplantation (RIUT) as COVID Hospital in response to government notification and specification of 50 beds of these hospital for isolation of coronavirus infected cases from Rawalpindi district [14]. Being equipped with all essential diagnostic and curative amenities, maximum populates of Rawalpindi district and those from the vicinity preferably visit BBH for their healthcare problems. Moreover, this hospital is not only recognized for postgraduate training of doctors and nurses but also designated to provide consultancy to the inhabitants of about 27 EMRO countries [15]. Some of the underprivileged states of Mexico and Brazil were confronted with difficulties in timely provision of surgical, obstetric and anesthetic facilities to their population due to insufficient investigative services at their hospitals. Even the manpower for execution of diagnostics in healthcare facilities of these poor states was quite meagre [16]. Acquisition with advanced investigative and therapeutic services of any institute enable the utilization of those facilities for the wellbeing of humanity. In addition to diagnostic, various therapeutic and restorative measures have also been carried out to make the healthcare services satisfactory for the population of the respective catchment area. Apart from birth of newborn babies, incidence of major and minor surgeries, physiotherapies and dialysis of the patients accomplished at BBH during 2018-2020 were also analyzed to judge the workload. However the curative services were made available to the patients comparatively more during 2019 as evident. A similar cross-sectional study done by Roa et al to compare the availability of surgeons in public and private sector healthcare settings revealed that despite the easy access to public sector hospitals by majority of the Mexican populates, private sector healthcare facilities were determined to be fully equipped with all necessary adult and pediatric equipment; however, anaesthetists, surgeons and obstetricians were relatively all time available in public hospitals than those of private clinics [17]. Being situated in the center of Rawalpindi city, the services of BBH are quite conveniently accessible to the common citizens. Periodic Feedback of the patients pertinent to consultation with doctors and procurement of healthcare and free medication in public sector healthcare facilities is of utmost importance to enhance healthcare indicators of the country [18]. Maneuvering the healthcare in the light of patients' feedback and suggestions can help our administrators to great extent in improving the standard of care by capacity building of the healthcare professionals including support staff and implementation of relevant Minimum Service Delivery Standards (MSDS).

Conclusion and Recommendations

Benazir Bhutto Hospital being situated in the center of Rawalpindi is housed with all essential clinical requisites to manage healthcare issues of the community. Training of the healthcare workforce and improving the services in accordance with feedback of the patients can help a great deal to enhance the quality of healthcare.

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