



Abstracts

10th Annual International Scientific Conference & Quality Convention

“Universal Health: Accessibility, Quality and Research in the Era of COVID-19 Pandemic”

Nov 7, 2020

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Acknowledgement

The organizing committee of the 10th FMIC Annual International Scientific Conference and Quality Convention gratefully acknowledges the financial and in-kind contribution of Global Affairs Canada (GAC), Agence Française de Développement (AFD), Aga Khan Foundation and other partners made to the conference and to various Programmes. These contributions enabled FMIC to organise a successful conference and quality convention.

Message from Chief Executive Officer

On behalf of the FMIC Board and Management, I extend a warm welcome to all the participants of the 10th FMIC Annual International Scientific Conference and Quality convention.

The French Medical Institute for Mothers and Children (FMIC) is the product of a unique four-party international partnership that includes the Governments of Afghanistan and France, the Aga Khan Development Network, and the French humanitarian organization, La Chaîne de l'Espoir. That partnership is the defining characteristic of FMIC, and one of its greatest strengths. Essential to a successful partnership is trust among the partners. That begins by sharing a common vision, and then committing resources toward that vision. Trust requires that the partners be open and transparent with one another. In FMIC's governance and management, we are deeply committed to that relationship. The level of commitment and cooperation among the partners is noteworthy. All are investors and have an ownership stake in FMIC. All have input into its governance and management, its priorities, strategies, and programs. Due to this unique bond; despite several challenges including the recent Covid-19 pandemic, FMIC has achieved remarkable success over the past 14 years.

FMIC is investing in the future of Afghanistan's healthcare system by providing medical professionals with international standard training and professional development. The Post Graduate Medical Education Program is a flagship program which offers specialized training in eight difference specialties of which five are rare in rest of the country. Since 2011 FMIC has annually sponsored an international scientific conference as well as a quality and patient safety convention, both of which showcase Afghan health professionals' high capacity for critical thinking.

FMIC has so far organised nine International Conferences, on various emerging themes such as 'Paediatric Care in Afghanistan' on February 26-27, 2011; 'From Paediatric Care to Child Health' on December 1-2, 2012; 'Moving towards Quality Healthcare for Mother and Child' on October 5-6 2013; 'Strengthening Academics and Health Services in Developing Countries in Transition' on October 23-24, 2014; "Emerging Trends in Reproductive, maternal, new-born and child health in Developing Countries" on December 8-9, 2015, 'Emerging Trends of Non-Communicable Diseases (NCDs) in Developing Countries' on November 24, 2016; 'Healthy Lives and Well-being for All' on August 5, 2017; "Better health: reaching everyone, everywhere" on August 4, 2018, and "The science of healthcare - Access & quality" on August 3, 2019.

This year, FMIC brings the 10th Annual International Scientific Conference and Quality Convention to you with the theme of "Universal Health - Accessibility, Quality and Research in the era of the Covid-19 Pandemic". It is pertinent to note that besides the yearly international conferences since 2011; FMIC has also been organizing quality conventions with the objective to enhance patient safety, and nurture innovations in healthcare. This year, we have combined both events in the face of challenges posed by the Covid-19 pandemic. I do believe that you will find both the events most informative and useful.

Once again, welcome to the 10th FMIC Annual International Scientific Conference and Quality convention with best wishes for a stimulating and rewarding experience.

Aziz Ahmad Jan
Chief Executive Officer, FMIC
October 2020

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M&EHIS, MoPH

Conference Programme

Theme	Presentations
Session 1: Communicable Diseases and Global Outbreak (COVID-19)	Epidemiological Analysis of Acute Flaccid Paralysis (AFP) Cases in Southern Region of Afghanistan, 2016-2018
	Analysis of Case Based Surveillance Informs HIV Response
	Mapping and Population Size Estimates of People Who Inject Drugs (PWID) in Afghanistan in 2019
	Child Immunization Coverage Survey in Urban Area of Kandahar Province 2019
	A 30- month Study on Isolated Micro-organism from Blood Cultures and Its Sensitivity Pattern in Admitted Paediatric Patients at a Tertiary Paediatric Hospital
	The Pattern and Proportion of Gingival Enlargement Among Afghan Pregnant Women (20-40) Years Old in Stomatology Hospital, Kabul, Afghanistan
	Descriptive Epidemiology of Acute Flaccid Paralysis (AFP) Cases in Central Region of Afghanistan, 2016-2017
	Epidemiological Description of COVID-19 Cases in Ghor Province, Afghanistan
	Epidemiologic and Clinical Characteristics of 1728 Hospitalized Patients with COVID-19 in Afghanistan: A Retrospective, Multi-Centre Case Series
	Clinical Features, Laboratory Findings, and Outcomes of Young Children Presenting with Multisystem Inflammatory Syndrome in Children(MIS-C) In the Midst of SARS-CoV-2 Outbreak in Kabul.
	Screening on Newly Enrolled Students at School for Early Detection of Prevalent Health Problems in Kabul Province
	Impact of COVID-19 on Laboratory Professionals: Results of a Virtual Survey at a High Volume Clinical Chemistry Laboratory
	COVID-19 Disease and Interferon- γ : Has it a Protective Impact on Mortality?
	Session 2: Public Health and Non- Communicable Diseases
Sturge-Weber Syndrome - A Case Report	
A Cross-Sectional Study of Caesarean Hysterectomy During One Year at Tertiary Care Hospital of Malalai	
Risk Factors Associated with Female Breast Cancer in Patients Diagnosed in Tertiary Care Hospitals: A Case Control Study	
Outcome of Surgery in Patients with Congenital Heart Defects at a Tertiary Care Hospital in Kabul, Afghanistan	
Left Main Percutaneous Coronary Intervention (PCI) In a Patient with Unstable Angina	
Prevalence of Horizontal Strabismus in Paediatrics Patients at University Eye Hospital	
Clubfoot, A Significant Cause of Morbidity Among Children in Afghanistan	
A Qualitative Study of Socio-Cultural Factors Influencing Fertility Preferences in Muranga, Kenya: The Case of Young Married Men	
A Web-based Database-for Validating Dried Blood Spot Reference Intervals of Amino Acids on Neonates Enrolled in AMANHI Study	
Session 3: Nursing, Quality and Patients safety	The Association of Gender with Outcomes of Percutaneous Coronary Intervention (PCI)
	Level of Adherence to Safe Injection Protocol Among Health Care Workers Working in Tertiary Care Teaching Hospitals of Peshawar
	I Should Have Seen Her Face at Least Once”: Parent’s and Health Providers’ Experiences and Practices of Care Following Stillbirth in Afghanistan
	Enhancing Staff Knowledge on Nursing Care Plans to Improve Patient Outcome
	Retrospective Data Analysis: Trauma Patients Admitted through Emergency Department at a Tertiary Care Hospital in Kabul, Afghanistan
	Ensuring Safe Surgery Through a Standard and Consistent Approach to Save Life
	Ensuring Patient Safety Through Effective Communication Among Healthcare Professionals

Oral Presentations

Scientific Sessions

Abstracts

Communicable Diseases and Global Outbreak (COVID-19)

Session 1

Epidemiological Analysis of Acute Flaccid Paralysis (AFP) Cases in Southern Region of Afghanistan, 2016- 2018

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Introduction

Globally, there are two polio endemic countries in the world and Afghanistan is one of them in which Acute Flaccid Paralysis (AFP) surveillance system was adopted in 2006, to monitor progress towards polio eradication. This study describes the epidemiology and evaluates performance of AFP in southern region of Afghanistan during 2016-2018.

Methods

A retrospective descriptive analysis is conducted on available AFP surveillance dataset in the southern region of Afghanistan, for the period of 2016 - 2018 consisting those children aged from 0 – 15 years. We analysed various aspects of data in term of person, place and time as well calculated and reported WHO specified epidemiological and laboratory performance indicators of surveillance system recommended by EPI Programme in MoPH.

Results

Southern region of Afghanistan has reported 1750 AFP cases from Jan 2016 to Dec 2018. Out of these, 1235 (70.6%) were under 5 years and 981 (56.1%) were male. Of them 26 cases were confirmed as poliomyelitis by lab during the last 3 years, (2 in 2016, 9 in 2017, 15 in 2018). Regional annualized non-Polio AFP case detection rate has increased from 14.9 in 2016, to 14.0 in 2017, and 15.3 in 2018 cases/100,000 aged <15 years. Stool adequacy proportion was 94% in 2016, 97% in 2017 and 97% in 2018. Only in Urozgan province, stool adequacy was less than 80% in 2018. Arrival of specimen to WHO lab within 3 days has been less than target (80%), it was 40% in 2016, 40% in 2017 and 37% in 2018. Lab report of enterovirus was 24%, 21%, 21% in these years, respectively. Almost 873 (49.9%) and 51 (2.9%) of AFP reported cases did not receive any OPV dose in routine immunization as well as in SIAs campaigns.

Conclusion

AFP surveillance system met most of the WHO specified epidemiological and laboratory performance standards. The Surveillance Programme needs to address the delayed specimen arrival to lab in the regional AFP surveillance database. Specific interventions are needed to improve the routine immunization.

Analysis of Case based surveillance informs HIV response

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² AIDS, STI and Hepatitis Programme Manager

Introduction

Afghanistan experiences a low-level HIV epidemic with a prevalence of less than 0.1% (UNAIDS, 2018) in the general population and 4.4% among People Who Inject Drugs (IBBS 2012). The estimated number of PLHIV was 7200 (UNAIDS 2018). There are different drivers of the epidemic in Afghanistan, which fuel HIV epidemic, for example: People Who Inject Drug, to lower extent sexual partnerships, stigma and discrimination. In the absence of more recent bio-behavioural data, case based surveillance was used to assess the most recent trends of HIV epidemic in the country.

Methods

The source of the data was HIV case-based surveillance database for the period of 2014-2019. The following variables were analysed: number of new HIV diagnosis, gender, age, geographical location, transmission mode and CD4 cell count at the time of HIV diagnosis, death due to HIV.

Results

A total of 2,923 cases have been reported since the first case reported in 1989. Less than 300 new HIV diagnoses were reported annually during the period 2014-2019. In the last eight years, there has been an increase in the number and proportion of newly diagnosed women, progressing from 31 new HIV diagnosis (19.1% of the total number) in 2012 to 57 (29.6%) in 2019. Among all new HIV infections, the predominant age group for male was 20-29 and for female 30-39. For the period of 2014-2019 there were 751 new HIV diagnosis reported. Two thirds of reported new HIV diagnoses were reported among key or vulnerable populations.

During the period of 2009 to 2019 there were 254 deaths due to HIV registered predominantly among male population (91%), PWID presented 41% of all death cases.

Conclusion

The data show that HIV is concentrated among Key populations and their sexual partners. The new HIV diagnoses are presented late, particularly among male population, which indicates barriers for access to HIV testing. The response to HIV should be targeting those populations in need. Additional research such as bio-behaviour research or rapid assessments should be implemented to get more information on HIV transmission patterns in key populations and better describe vulnerable populations in order to better target the response.

Mapping and Population Size Estimates of People Who Inject Drugs (PWID) in Afghanistan in 2019

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Introduction

Afghanistan experiences a concentrated HIV epidemic among People Who Inject Drugs (PWID). The mapping and population size estimation of PWID provide Programme staff and policy makers critical information needed for monitoring coverage of Programmes, and planning new appropriate interventions. We measured locations, typology, and population size of PWID in eight cities, and extrapolated results to other major cities in Afghanistan.

Methods

PWID locations, typology and population size was measured by (i) key informant interviews and FGDs, mapping and enumeration with reverse tracking method, (ii) the unique object and service multipliers, (iii) capture-recapture, (iv) wisdom of crowds, and (v) a synthesis of the estimates from above methods using the Anchored Multiplier Bayesian approach (point and 95% Credibility Interval). Then, we used a regression model and several proxy indicators to extrapolate the results to other non-studied major cities.

Results

We found more than 374 hotspots for PWID across the eight cities. Majority of PWIDs who participated in the study were male (99.3%), reported last injected in last 3 months (82.5%), reported Heroin as the major drug for injection (99.3%), ever tested for HIV (82.0%), and knew their HIV status (70.0%). The self-reported HIV prevalence was 20.7%, ranged from 0% in Zaranj to 63.0% in Kabul provinces. The total number of PWID in 31 major cities was estimated to be 25,736 (95%CI 19,364 to 32,877) persons, which corresponds to 0.69% (95%CI 0.52% to 0.88%) of the adult population (15 – 64y), the highest number 6,061 (95%CI 4,257 to 8,225) living in Kabul.

Conclusion

Using multiple methods, our study provided estimates for the population of PWID in major cities in Afghanistan. The PWID population size is considerable, and in certain areas, a large number of them are infected with HIV and need to be reached by care and treatment services in Afghanistan.

Child Immunization Coverage Survey in Urban Area of Kandahar Province During 2019

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¹AFETP graduate, M&E focal point for southern region, NEPI

³AFETP graduate, provincial NDSR office, DoPH Kandahar

Introduction

Afghanistan has high infant and under 5 mortality rates compared globally. The recent survey in 2018 estimate infant and <5 children mortality rate as 41 and 50 per 1000 live births, respectively. Still vaccine preventable disease is taking life of children in Afghanistan. This study describes the child immunization coverage and factor associated, during 2019 in urban area of Kandahar province.

Methods

Descriptive cross-sectional community base household study is designed to estimate immunization coverage in children aged 12 -23 months and factors associated with coverage in urban area of Kandahar Province. Two-stage cluster sampling technique is adopted. The survey is carried out in 60 clusters of Kandahar urban area, with the sample of 443 caregivers of the children 12 – 23 months in 420 households. Clusters detail with the list of households was obtained for teams' interview. Data is collected based on developed questioner.

Results

Among total study sample 428 caregivers 96.6% were mother of the children. A total of 81 (18.2%) caregiver respondents were educated. Among the study sample 328 (73.4%) children had vaccination cards, 76 (17.1%) had cards but not seen and 42 (9.5%) never had vaccination card. 214 (48.3%) children were fully immunized, 187 (42.2%) were partially vaccinated and 42 (9.5%) were never vaccinated. Dropout rate between Penta1 and Penta3 doses was 68 (19%) and BCG – Measles1 dropout rate was 112 (32%). 99% of Penta3 doses and 90% of Measles 1 doses were recorded as valid doses. Among 42% of partially vaccinated children main reasons were, 25% card losses, 22% unaware and 18% mother being busy. Among 9.5% of never vaccinated children main reasons were, 33% mother is not allowed, 19% rumours, 17 wrong Ideas, 17% no faith on vaccination. Based on administrative data, AHS survey and AFETP residents survey data, coverage of BCG is (>100%, 60% and 86%), Penta1 dose (100%, 50% and 79%), Penta3 dose (86%, 29% and 64%), Measles 1 coverage (83%,40% and 57%) respectively.

Conclusion

EPI Programme did not achieve national level EPI targets in urban area in Kandahar province of Afghanistan. Mother literacy has direct relationship with child vaccination. There is greater need to mobilize community for vaccination. Special interventions are needed for community awareness through behaviour change communication and interpersonal communication of the service providers. EPI Administrative coverage data needs to be verified in field.

A 30-month Study on Isolated Micro-organism from Blood Cultures and Its Sensitivity Pattern among Admitted Paediatric Patients at a Tertiary Paediatric Hospital

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Objective

To determine the common micro-organisms responsible for Blood Stream Infections (BSIs), antimicrobial sensitivity pattern and expiry rate among admitted Paediatric patients at French Medical Institute for Mothers and Children (FMIC).

Methods

Retrospective study was conducted during Jan-2018 to June-2020, the study subjects were Paediatric patients with positive Blood Cultures (BCs) who were admitted at FMIC during the same period.

Results

A total of 369 cases of positive BCs were included in this study - 285 (77.23%) were male and 84 (22.76%) were females. With regard to patients age 167 (45.25%) patients were < 1 month, 77 (20.86%) were 1-12 months, 96 (26.01%) were 12-56 months and 29 (7.85%) were > 56 months. The study found that 115 (31.16%) of the organism were gram (+), 242 (65.58%) were gram (-) and 12 (3.25%) were fungal infections. Totally 19 types of micro-organisms were isolated as follow: *Staphylococcus.spp*: 88 (23.84%), *Pseudomonas.spp*: 81(21.95%), *Klebsiella.spp*: 51 (13.82%), *Burkholderia.spp*: 23 (6.23%), *Serratia spp*: 22 (5.96%), *Staphylococcus.aureus*: 22 (5.96%), *E. coli*: 21 (5.69%), *Enterobacter cloacae*: 14 (3.79%), *Candida spp*: 12 (3.25%), *Acenitobacter.spp*: 11 (2.98%), *Stenotrophomonas maltophilia*: 8 (2.16%).

From a total of 369 patients 27 (7.31%) patients died, among whom 10 (37.03%) were neonates, 6 (22.22%), were aged 1-12 months, 7 (25.92%) were 12-56 months and 4 (14.81%) were aged > 56 months. Mortality among male was 18 (66.66%) and among female was 9 (33.33%). According to the cause of death: *staphylococcus.spp*: accounted for 8 cases (29.62%), *klebsiella.spp*: 5 (18.51%), *acenetobacter.baumannii*: 4 (14.81%), *serratia oderfero*: 4 (14.81%), *enterobacter cloacae*:2 (7.4%).

According to the history of previous admission in other hospital 258 patients (69.91%) were admitted and 111 (30.08%) were not admitted before hospitalization in FMIC. The effective antibiotics against Gram + organisms were vancomycin, clindamycin, amikacin and rifampicin in turn. The effective antibiotics against G – organisms were imipenem, piperacillin + tazobactam, ceftazidime and amikacin in turn.

Conclusion

The most prevalent gram + organism was *staphylococcus spp* and gram – was *pseudomonas aeruginosa*. The 7 common organisms responsible for BSIs were identified. Death rate was 7.3% in this study. Hand washing and other hygienic precautions are crucial to decrease the incidence of BSIs.

The Pattern and Proportion of Gingival Enlargement Among Afghan Pregnant Women (20-40) Years Old in Stomatology Hospital, Kabul, Afghanistan

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Introduction

Gingiva is the part of periodontium that provides the support necessary to maintain teeth in function; therefore, increase in size of the Gingiva is a common feature of Gingival diseases the accepted terminology for this condition is Gingival Enlargement or Gingival over growth. Due to lack of research regarding gingival enlargement among afghan pregnant women in Kabul city, this study aimed to determine the pattern and proportion of Gingival Enlargement among Afghan pregnant women 20-40 years old visited at a stomatology Hospital in Kabul, Afghanistan

Methods

A descriptive case-series study design was conducted from Sep 2019 to April 2020 among 40 women with age ranging 20-40. The hospital patients file records were used for data collection and the study participants' age, marital status, cause, type, degree of gingival enlargement and oral hygiene scoring were collected. Data was entered and analysed using SPSS version 22. Proportion and frequency were calculated for categorical variable, mean and SD were calculated for continues variables.

Results

The study finding shows among a total of 40 study participants; 15 patients (37,5%) were between 20-30 and 7 patients (17,5%) were between 31-40 years old. 22(55%) patients were pregnant with Gingival enlargement, among these 21(52,5%) patients had Generalized Gingival Enlargement and 1(2,5%) patient had localized gingival enlargement. Among study sample 14 patients (35%) had poor oral hygiene and 8 patients (20%) had fair oral hygiene. 14 patients (35%) had conditional changes and 8 patients (20%) had inflammatory changes. With regards to the degree of enlargement, the study found that 12 patients (30%) were in grade 3 and 9 patients (22,5%) were in grade2 and 1 patient (2,5%) was in grade 1).

Conclusion

The study found that more than half of pregnant women visiting a stomatology hospital in Kabul city had Gingival Enlargement. Poor oral Hygiene with conditional, hormonal and inflammatory changes were common factors observed among the study sample. Appropriate intervention focusing on oral hygiene is required to prevent gingival enlargement among pregnant women in Kabul city.

Descriptive Epidemiology of Acute Flaccid Paralysis (AFP) cases in Central Region of Afghanistan, 2016- 2017

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² Technical Advisor of AFETP in ANPHI, MoPH

Objective

Globally, there are two polio endemic countries in the world and Afghanistan is one of them in which Acute Flaccid Paralysis (AFP) surveillance system was adopted in 2006, to monitor progress towards polio eradication. This study describes the epidemiology and evaluates performance of AFP in central region of Afghanistan during 2016-2017.

Methods

A retrospective descriptive analysis is conducted on available AFP surveillance dataset in the Central region of Afghanistan, for the period of 2016 - 2017 consisting those children aged from 0 – 15 years. We analysed various aspects of data in terms of person, place and time of surveillance system recommended by EPI Programme in MoPH.

Results

Central region of Afghanistan has reported 1052 AFP cases from January 2016 to December 2017. Out of these, 652 (55%) were male, majority of non-Polio AFP cases 766 (73%) were below 5 years old. Non-Polio AFP rate is 12/100000 as average, although expected rate is 2/100000. Non-Polio AFP cases mean age was 3.6 years, 831 (79%) were flaccid, 790 (75%) had fever and 470 (44.6%) were asymptomatic, 96% AFP samples in 2016 and 97% in 2017 were reported as adequate. 92% of the AFP cases were investigated within 7 days, 8% cases investigated within 8-12 days. Only 28% of the children had immunization cards. Lab has reported SL1, SL3 12% and enterovirus.

Conclusion

Non-Polio AFP reported rate is more than expected, which shows high sensitivity of the network. Lab has reported SL1 and SL3 is good indicator for good samples. The AFP surveillance system was effective over the last 2 years in the region; it has met the surveillance performance indicators at provincial level. We also discovered the non-polio enterovirus isolation rate is declining from 2016 to 2017. More focus is needed on achieve the standard indicators.

Epidemiological Description of COVID-19 Cases in Ghor Province, Afghanistan

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Background/Objective

The first case of COVID-19 was detected in Wuhan, a city in China in December 2019. Afghanistan surveillance system detected the first COVID-19 case on 24 February 2020 in Herat province that spread from Iran. Thereafter it has been spreading in all 34 provinces. The aim of this study is to present the epidemiology of the COVID-19 cases in Ghor province during 2020.

Methods

This is an epidemiological investigation of COVID-19 cases detected and confirmed in Ghor province. We used the standard case definition issued by MoPH. All socio-demographic and epidemiological information were recorded using and line listed. We collected throat and nasal samples and shipped to the COVID-19 reference labs in Kabul and Herat for rt-PCR. The data was analysed by SPSS v.20. Descriptive analysis such as frequency, proportion, mean (SD) and median were measured.

Results

Totally 1214 samples were collected and tested, of which 540 (44%) were confirmed for COVID-19 by PCR. However, due to incompleteness of the data, we only included 436 confirmed cases for purpose of this study. About 54% of the cases reported from capital of the province, Chegcheran. The mean age of the confirmed cases was 45 years (SD=16) and ranged between 7 to 90 years. It infected more male (74%) than female. Almost 11.5 % of the cases were severe and 4 % of all cases were admitted in the hospital. The most frequent signs and symptoms were fever (92.7%), cough (91.5%), headache (89%), fatigue (61%) and diarrhoea (24%). Overall, 13 deaths associated with COVID-19 were reported and accounted for case fatality rate of 2.4%.

Conclusion

Apparently, the epidemiology of COVID-19 in Ghor province is like other provinces. However, more than half of the cases were from the capital of the province, indicating urban biased. In addition, wide gap between male and female infection rate was seen in this study which needs to be investigated further.

Epidemiologic and Clinical Characteristics of 1728 Hospitalized Patients with COVID-19 in Afghanistan: A Retrospective, Multi-Centre Case Series

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Introduction

On 31 December 2019, cases of pneumonia of unknown cause were identified in Wuhan, Hubei Province of China, and soon spread globally including Afghanistan. The study aim was to determine the impact of Coronavirus infection (COVID-19) as well as the demographics and outcomes of the first sequentially hospitalized patients with COVID-19.

Methods

A retrospective multi-centre case series was conducted among 1728 patients admitted to the National Covid-19 Hospitals in Afghanistan with a laboratory-confirmed severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2), known as COVID-19. Variation in characteristics and outcomes were examined. Data were extracted from District Health Information Software 2 (DHIS2) databases developed by MoPH.

Results

On 24 February, the first suspected case of COVID-19 was confirmed by a lab in Hirat-Afghanistan which spread from Iran. On 22 March, the first official death due to COVID-19 was announced in Balkh-Afghanistan. Totally 101208 samples were tested by PCR, 38054 cases were positive and 1389 (3.65%) died was reported officially. Totally 1728 cases were hospitalized in national COVID-19 hospitals. 26.2% of female and 73.8% of male were hospitalized. Average age of patients were 42.66 years (SD 17.827). 18.3% of were sever cases, 33.5% had an ICU stay during hospitalization and 22.9% died.

Conclusion

Males were more likely to be admitted to hospital with COVID-19 illness than females. This study reported summary statistics of key clinical outcomes that provides insights to better understand COVID-19 disease epidemiology.

Clinical Features, Laboratory Findings, and Outcomes of Young Children Presenting with Multisystem Inflammatory Syndrome in Children(MIS-C) in the Midst of SARS-CoV-2 Outbreak in Kabul

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Introduction

Multisystem Inflammatory Syndrome in Children (MIS-C) was first identified in April-2020 by doctors at children's hospitals in the United States and the United Kingdom. At first, the paediatric population was described as low risk for severe COVID-19. But few months' later into the epidemic a novel MIS-C emerged. MIS-C may present with variable clinical symptoms, including fever, skin rash, and diarrhoea, making it hard to differentiate from other febrile illnesses and syndromes (Kawasaki disease, toxic shock syndrome). It is important to promptly diagnose and treat these children who may deteriorate rapidly and require intensive care monitoring. Over a period of four months during the COVID-19 pandemic, we have summarized the clinical pattern, biological marker, and outcome of the first 17 cases of MIS-C admitted to a tertiary care hospital i.e. French Medical Institute for Mothers and Children(FMIC), Kabul.

Objective

To assess clinical features, laboratory finding and outcomes of Multisystem Inflammatory Syndrome in Children (MIS-C).

Methods

Children with MIS-C admitted to paediatric medicine unit in tertiary care hospital (FMIC) between May-August 2020 were included. Demographic, clinical, laboratory finding and early outcomes data were collected retrospectively.

Results

The peak of hospitalization occurred approximately 7 weeks after the COVID-19 outbreak; of 17 children with MIS-C, the Median age was 7 years and 58% of patients were female, 12 % of the children admitted to intensive care, all patients had fever and the average temperature was 39.3 C, 64% of patient developed skin rash, 35% had GI symptoms (loose motion and vomiting), Respiratory distress 29%, and 41% of the children had body & joint pain, only 17% of the patients had pedal oedema.

Elevated levels of CRP were observed up to 88%, average CRP concentration was 18.2 mg/dl, 82% of patient had lymphocytopenia (absolute total blood lymphocyte < 1500/mic lit), 77.5% of patient had high ESR, 23.5% patient presented with AKI, 35% of the patients had abnormal liver function. Two patients received inotropes and one patient received steroid, all patients were discharged in good conditions.

Conclusion

Proving previous COVID-19 disease, or likely contact with someone who has had COVID-19, is a limitation in these data because of poor access to SARS-CoV-2 antibody testing. We suggest that this should not prevent the diagnosis and treatment of MIS-C after the careful exclusion of other conditions in a country with evidence of community spread.

Screening of Newly Enrolled Students at Schools for Early Detection of Prevalent Health Problems in Kabul Province

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Objective

Provision of basic health services through school health rooms has been initiated in Kabul province based on the evidences of a feasibility study in 2015. The objective of this study was to screen 9000 newly enrolled students at 40 public schools in Kabul, to early detect, prevent, and treat their Eye, Ear, and Dental problems through utilization of health services.

Methodology

This was a cross-sectional study using quantitative and qualitative methods to screen 9000 newly enrolled students (5006 Girls, and 3686 Boys, but 308 records were excluded during data cleaning) aged 6-8 years at 40 public schools in Kabul Province. These schools were selected purposively, using convenient sampling strategy, and visited by 40 trained professional health workers, using standard questionnaire and screening tools, direct observation, and screening of Eye, Ear, and Dental problems (Jul-Sep, 2019).

Results

The main problems were summarized under 4 categories; 1. Oral Cavity: 2490 identified cases of Dental Caries (29%, n=8692); 2. Eye problem: Refraction Error 212 cases (2.4%, n=8692); 3. Ear problem: Hearing Loss 33 cases (0.4%, n=8692); 4. Others: 5950 were Normal cases, and 7 others were rare conditions. Moreover, 2743 (31.5%) students who had mentioned problems were referred to the nearest hospitals for treatment using agreed upon referral sheets, and 5950 (68.45%) students received targeted IEC messages.

Conclusion

School is a reasonable platform at the community level for health services utilization, early detection and prevention of prevalent public health problems (this costs only 1 USD per student). Universal multi-sectorial School-based interventions are needed and should be promoted.

Impact of COVID-19 on Laboratory Professionals: Results of a Virtual Survey at a High Volume Clinical Chemistry Laboratory

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Objective

The lab professionals at one end are at increased risk of contracting the infection while on the other end have to deal with the various challenges during the Coronavirus Disease 2019 (COVID-19) outbreak. The aim of this survey was to analyse the lab professionals' perspectives, in terms of the challenges, fears and satisfaction from organizational processes and policies adopted, amid the COVID-19 crisis.

Methodology

The survey was administered online via the google docs survey tool to all full-time medical laboratory professionals (n=64) serving at the section of Clinical Chemistry, department of Pathology and Laboratory Medicine, the Aga Khan University (AKU), Pakistan from June 4th to 14th 2020. A team consisting of three Clinical Chemistry consultants, designed the survey questionnaire focused on financial and social implications, stress and satisfaction level from organizational policies. The responses were recorded on a Likert's scale of 1-5. Frequency and percentages were calculated for gender, experience and designation while descriptive results based on the responses were documented. The statistical analysis was performed using Microsoft Excel 2013 and SPSS 19.0.

Results

The response rate was 78% (n=50). 60% responded that the current lifestyle adopted during the pandemic was not better than the traditional one. The fear of employment termination and financial challenges were being faced by 42% and 78% respondents respectively. The quality of family life was improved in 54% cases while 96% were of the view that their social activities at work have suffered. Whereas, 22% lab staff were not satisfied by the measures taken by the management during the outbreak.

Conclusion

The findings of this survey provide laboratorians' perspective, in times of such crisis and provides policy makers with key lessons to prepare for the post COVID world.

COVID-19 Disease and Interferon- γ : Has it a Protective Impact on Mortality?

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Introduction

In late 2019, a novel coronavirus infection later named the COVID-19 epidemic suddenly hit Wuhan, China, and quickly spread all around the world, leading to a global pandemic. High transmissibility among population and fatalities rate in specific high-risk groups made this novel infection a high impact health threat. The mortality varies from less than 0.05% to approximately 15.5% (4–6). Surprisingly, the mortality rate reported from countries with fragile health systems is meaningfully low. The current review analyses the available data to discuss the claims and offers an alternative hypothesis to clarify the issue.

Methods

In line with the study's aim, 59 countries from all over the world were included in this study. The vaccination schedules of countries were analysed. This study makes use of the BCG World Atlas, a compendium of BCG vaccination policies in over 180 countries compiled by McGill University. Based on the presence or absence of BCG vaccination in the routine neonate vaccine schedules, countries were classified into two groups. Confirmed numbers of the COVID-19 cases and deaths until the middle of May 2020 were obtained from the Real-time Statistics Project World meters. Also, the HAV prevalence levels in different regions were obtained from the centres for disease control and prevention (CDC) data sources (15). Annual flu death per 100,000 population data was also retrieved from the global map, which is pulled country by country from world health organization.

Result

The countries that have the BCG vaccination schedule, on average, cover 92% of the total area of the country. The COVID-19 case/1MP and mortality rates showed significant differences (P-value <0.001) between countries that have a universal BCG vaccination Programme and the countries that have not. The mean of case/1MP and death rate among the countries that have not a BCG vaccination Programme were 2129.5 cases/1MP and 7.2% respectively. In contrast, the mean among countries with BCG vaccine schedule was significantly lower and was 680.54/1 MP and 3.6%, respectively.

A significant negative correlation between BCG coverage and COVID-19 mortality rate was found ($r(59) = -0.4$, P-value <0.05). The mean of the cumulative relative frequency of population over 60 years old in countries with and without universal BCG immunization was 25% and 15%, respectively. Also, a significant correlation between the cumulative relative frequency of the population over 60 years old and the mortality of COVID-19 was detected ($r(59) = 0.4$, P-value <0.01). In the same way, there is a weak negative correlation between HAV prevalence level and death rate of Covid-19 ($r(59) = -0.3$, P-value <0.01), which means with the increase of HAV prevalence, the death rate of COVID-19 decreases.

Conclusion

IFN- γ induced immune response pathways induced by BCG, HAV, and flu vaccination and natural infection may trigger a protective effect against COVID-19 disease and mortality.

The Frequency of Hypothermia in Preterm Neonate (<weeks of gestation) During Transportation from the Laboratory to the Neonatal Intensive Care Unit

Afsana Padaniya

Research Coordinator, the Aga Khan University Hospital

Background

Neonates develop hypothermia soon after birth due to their underdeveloped thermoregulation mechanism at the time of birth and large body surface area, as compared to their weight. Neonates develop hypothermia through the mechanism of conduction, convection, radiation, and evaporation. There are other factors that also play an important role in developing hypothermia in neonates.

Objectives

To identify the frequency of hypothermia in preterm neonates (≤ 34 weeks of gestation) during transportation from the labour room to the Neonatal Intensive Care Unit (NICU), at a tertiary care hospital, Karachi.

Methodology

It is a cross-sectional study design used to determine the frequency of hypothermia in preterm neonates (≤ 34 weeks of gestation) during transportation from the labour room to the Neonatal Intensive Care Unit (NICU). A sample of 107 preterm neonates (≤ 34 weeks of gestation) were recruited, who were admitted directly from the labour room to the NICU. Data were analysed using SPSS v.20. The descriptive analysis for continuous variables were reported as mean and standard deviation/median (IQR) and were assessed by *t*-test/Wilcoxon rank sum test (Mann Whitney test). For other categorical variables, percentages were reported and were assessed by Chi-square/Fisher's exact test to determine the relationship of different factors with hypothermia in neonates.

Results

The present study findings showed the frequency of hypothermia in preterm neonates on admission to the NICU was; $n=85$ (79.4%). A significant association was observed among gestational age, birth weight, and APGAR scores at one and five minutes of birth, and hypothermia on admission to the NICU (p -value <0.05). There was a significant difference observed in the incubator/warmer and body temperature at different time intervals; i.e. from one minute of birth till the arrival at the NICU, among preterm neonates (p -value <0.05).

Conclusion

The study concluded that there was a high frequency of hypothermia in preterm neonates during their transportation from the labour room to the NICU. The factors that were found to be associated with hypothermia were gestational age, birth weight, and APGAR scores.

The Digital Self-Screening and Assessment Based Mobile Application, *CoronaCheck*

Sumaira Lokhandwala¹, Tehniat Shaikh²

1,2 The Aga Khan University

Objective

To determine the role of digital self-screening and assessment using a mHealth application, *CoronaCheck*, in limiting the spread of infections and reducing the footfall at health facilities and to explore the effectiveness of a mobile application in early detection of illness and positively influencing health-seeking behaviours in population at risk.

Methods

The digital self-screening and assessment based mobile application, *CoronaCheck* was launched by AKU in Pakistan in April, Tanzania in May, Tajikistan in June and Kenya in August 2020. *CoronaCheck* aims to strengthen existing health systems by addressing the need for rapid and early testing, screening and awareness raising during the pandemic. The application consists of a self-assessment tool, which is adopted from the Alberta Health Services and converted by the Aga Khan University Hospital (AKUH) experts to meet local contexts and the evolving disease, to help the general population safely screen themselves at home and educational videos to enhance understanding of the COVID-19 virus. *CoronaCheck* uses an interactive Chabot, which enables users to determine their risk of infection based upon their responses. A counselling preface guides users to get tested or take appropriate physical distancing measures. The location of the nearest testing centres and a list of national helplines is provided.

Result

From April to August 2020, there have been 30,000+ application downloads, while 67,375 users have completed self-assessment on *CoronaCheck*. Self-assessment tool results reveal that 26% of those who attempted the survey were suggested to seek immediate medical care (Plan A), while 27% were advised to seek non-urgent care through teleconsultations, without visiting a health facility (Plan B) and 47% were advised to only take precautions and social distancing measures (Plan C). *CoronaCheck* was able to help prevent unnecessary hospital visits in 74% of the cases, curbing risk of spread, while also ensuring that diagnostic testing in health facilities are only availed by those who need it most.

Conclusion

CoronaCheck provides an opportunity to reduce burden on health systems during the times of humanitarian crises. The digital self-screening and assessment tool helps identify individuals require immediate medical assistance.

Public Health and Non-Communicable Diseases

Session 2

Surgical Outcomes and Socio-Demographic Pattern of Hypospadias Patients Treated in A Tertiary Care Centre in Kabul, Afghanistan

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Introduction

Hypospadias is a congenital anomaly of male external genitalia and is the second most common congenital anomaly of male new-borns after cryptorchidism.

Objective:

The aims of this study were to identify socio-demographic pattern of hypospadias among patients and to determine surgical outcomes of hypospadias patients operated in a tertiary care centre.

Methods

A descriptive case series design and non-probability consecutive sampling were used. Study population was 43 patients who underwent urethroplasty during January 2018 to September 2019. A structured questionnaire was used to assess the dependent and independent variables. Follow up notes of patients' medical record files were reviewed to assess post-operative condition of the patients along with presence of any post-operative complications.

Results

The mean age at the time of repair was 6.2 years. Family history was positive in 16.3% and consanguinity in almost 56% of the patients. The most common type of hypospadias was distal shaft type (30.2%), penile chordae was present in 25.6% and pinhole meatus in 32.6 % of the cases. The most common associated anomaly was cryptorchidism (9.3%) followed by inguinal hernia (2.3%). Peno-scrotal transposition was the most common sexual differentiation disorder (11.6%), however majority didn't have any disorder of sexual differentiation (83.7%). The most common complication was urethral stricture and meatal stenosis (9.3% each) followed by urethra-cutaneous fistula (7%) in this study, although remarkable majority (74.4%) was complication free. Urethral advancement procedure was more practiced in distal type (94.7%) and 2-stage repair for the proximal type (70%) of hypospadias.

Conclusion

Despite being the first study of its kind conducted in Afghanistan, similar studies are required to be conducted in other settings to be able to generalize the findings. Moreover, regarding genetic or hormonal influences that are more predominant in Afghanistan, studies need to be conducted.

Sturge-Weber Syndrome - A Case Report

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¹ French Medical Institute for Mothers and Children

Objective

Sturge-Weber syndrome (SWS) is a segmental vascular neuro cutaneous disorder with a constellation of symptoms and signs characterized by capillary malformation in the face (port-wine birthmark) and brain (leptomeninges), as well as abnormal blood vessels of the eye leading to glaucoma. Patients present with seizures, hemiparesis, stroke-like episodes, headaches, and developmental delay. Actually with these manifestations we can easily diagnose the Sturge Weber Syndrome, but presentations are so diverse that even diagnosis becomes difficult. It means we report a very rare presentation of Sturge Weber Syndrome which is not mimic classical manifestation.

Introduction

Sturge-Weber Syndrome (SWS) is a segmental vascular neuro cutaneous disorder with a constellation of symptoms and signs characterized by capillary malformation in the face (port-wine birthmark) and brain (leptomeninges), as well as abnormal blood vessels of the eye leading to glaucoma. Patients present with seizures, hemiparesis, stroke-like episodes, headaches, and developmental delay. Actually with these manifestations we can easily diagnose the Sturge Weber Syndrome, but presentations are more diverse that even diagnosis becomes difficult. It means we report a very rare presentation of Sturge Weber Syndrome which is not mimic classical manifestation.

Methods:

It is a rare case study of a 5 years' old boy at FMIC with protracted seizures and right side hemiparesis. Initially he was admitted in ward and later he developed protracted seizures so he was shifted to PICU. After controlling seizures, he was shifted back to ward. We did lab investigation, cerebrospinal fluid analysis, Electro encephalogram and neuroimaging which confirmed the diagnosis of Sturge Weber Syndrome.

Results

Early pre-symptomatic diagnosis is limited by the low sensitivity of neuroimaging in young infants and accurate prognostication is constrained by the clinical variability of SWS. Of all patients who present with a facial port-wine nevus, only 8 to 20% develop neurological symptoms, so the presence of a port-wine nevus is not sufficient to diagnose Sturge Weber Syndrome. We found that hemiparesis (stroke like) with protracted seizures and specific neuroimaging finding (leptomeningeal capillary-venous malformation in MRI or brain calcification in CT scan) without cutaneous manifestation in a patient confirm the diagnosis of Sturge Weber Syndrome.

Conclusion

The patient had seizure from infancy period and was treated with anticonvulsive medications. He went to neighbourhood countries but he was not diagnosed with Sturge Weber Syndrome due to this clinical variability. Conversely, rarely, a patient will have radiological features of SWS but no facial involvement.

A Cross-Sectional Study of Caesarean Hysterectomy during One Year at Tertiary Care Hospital of Malalai

Homa Akseer¹

¹OB/GYN, Associated Clinical Professor, Director of Malalai Maternity Hospital, Kabul-Afghanistan

Objective:

To find incidence of caesarean hysterectomy and its cases at the largest maternity care hospital of Malalai during One year.

Introduction

To find incidence of caesarean hysterectomy and its cases at the largest maternity care hospital of Malalai during One year.

Methods

A descriptive cross sectional study was designed during one year at Malalai Maternity Hospital. The sample included 30,040 women aged 15-49 years, a retrospective review of validated record of hospital registers from 21 March 2018 till 19 March 2019 was done, convenience sampling was used to access the records. All women admitted for delivery in the given period of time were included in this study and the data was analysed in excel 2016.

Results

Out of 30,040 obstetric patients admitted for delivery during one year ,6611(22%) patients had caesarean delivery, the caesarean hysterectomy done for 21 patients (0,31%), among them the principal causes were Uterine atony in 6 patients (29%), abnormal placental adhesions 7 cases (33%), placenta Previa 5 cases (24%), uterine leiomyoma 2 cases (9%) and abruption of placenta one case (5%). Most of cases (78%) occurred at maternal age of 31-35 years and most of them were multiparous (62%). Majority (67%) of the patients had gestational age of 36- 40 weeks, in terms of risk factors for caesarean hysterectomy, 11 (52%) of them had previous caesarean section preeclampsia 3 cases (14,2%), polyhydramnios 4 cases (19%) and twin pregnancies 3 cases (14,2%). Totally 7 patients had Antenatal Care (33%) that helped in diagnosis of adhesive placenta. The complications occurred in 11 patients (52%), which were wound infection in 3 cases (14, 2%), bladder injury in 3 cases (14, 2%), fever 2 cases (9, 5%), paralytic ileus 2 cases (9, 5%), re-laparotomy from **hemoperitoneum** one patient (4,7%) and no maternal death occurred during this period from caesarean hysterectomy. Total hysterectomy was done for 7 patients (33%), 14 cases with Subtotal hysterectomy around (67%), blood transfusion during and after surgical procedure done in all cases, 3 cases transfused with more than 6 points (14,2%).

Conclusion

Most cases of subtotal hysterectomy were carried out as desired procedures. Previous caesarean scar was found as the most prevalent risk factor and the complications increased by more scar numbers, early detection of adhesive placenta by Ultrasound is highly lifesaving. Wound infection and bladder injury stand as two top postoperative complications.

Risk Factors Associated with Female Breast Cancer in Patients Diagnosed in Tertiary Care Hospitals: A Case Control Study

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Pathologist, FMIC

Introduction

Breast cancer is one of the second most common causes of women's death worldwide. Data on risk factors associated with female breast cancer in the Afghan population is very limited. The aim of our study was to identify risk factors associated with female breast cancer in Afghanistan.

Methods

A retrospective case-control study was conducted with inclusion of 201 cases and 201 controls. Patient information was collected by interviewing the patient through a structured questionnaire. Histopathological information was collected from the hospital integrated laboratory management system. The data was analysed by using logistic regression with univariate and multivariable analyses to determine the association between breast cancer and predictors.

Conclusion

The results of the current study showed that factors such as: age (OR=1.02; 95%CI: 0.99-1.04; p=0.148); age at menarche (OR=0.83; 95%CI: 0.72-0.92; p=0.008); age at first baby (OR=1.14; 95%CI: 1.07-1.20; p<0.001); educational status (OR=1.93; 95%CI: 1.16-3.22; p=0.011); smoking (OR=2.01; 95%CI: 1.01-3.99; p=0.04) and family history of cancer (OR=1.98; 95%CI: 1.18-3.32; p=0.009) were significantly associated with breast cancer. However, our study did not demonstrate any correlation of statistical significance with some of the predictors which were previously highlighted in literature, such as: marital status, Body Mass Index (BMI), use of hormonal contraceptive, breastfeeding and exercise.

Outcome of Surgery in Patients with Congenital Heart Defects at A Tertiary Care Hospital in Kabul, Afghanistan

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Introduction

Congenital Heart Defects (CHD) are the most common developmental anomalies considered to be the leading non-infectious cause of mortality. CHDs are associated with lifelong comorbidities requiring frequent healthcare services. For this reason, CHDs have to be detected and corrected as early in life as possible.

Purpose

The purpose of this study is to explore the clinical outcome of patients who have undergone surgery for CHD.

Methods

FMIC is a member of the International Quality Improvement Collaborative for Congenital Heart Surgery (IQIC) since 2014. Through this collaboration, the data of the patients who undergo surgery for congenital heart defects is collected through a structured tool and entered into a centralized database called REDCap. The figures of this study are extracted from the REDCap centrally, and represents the 2019 data only. Access to this database is restricted and measures are in place to ensure confidentiality of the data.

Results

Total 330 patients 169 (51.2%) female and 161 (48.8%) male were operated during the year 2019. Majority, 275 (84.2%) patients were falling in the age category less than 18 years at the time of surgery where 60.7% of these patients were falling within <5th percentile according to WHO/BMI for age percentile. The procedures were mainly repair of TOF (39 patients), VSD (69 patients), ASD (92 patients), and PDA (83 patients). Post-surgery patient outcomes include; 8 (2.4%) in-hospital death, 3(0.9%) bleeding, 1(0.3%) pericardial effusion, 1(0.3%) surgical site infection, and 1(0.3%) central infection. Majority of the patients fall in RACH-1 Risk Category 1(153 patients) RACH-1 Risk Category 2(105 patients). The mortality rate was higher (16.7%) in patients with RACH-1 Risk Category 3 and above. The median for ICU stay was 36.6 hours and for ventilation time 6 hours. Upon 30-Day follow-up, 317 patients reported feeling well after surgery; while 5 others were expired after discharge at home. Average length of hospital stay was 6 days including pre-operative hospital stay.

Conclusion

The demographic characteristics presented by the patients resembles what is reported by the literature. Patient clinical outcome after surgery is considered within the international benchmark, and complications were minimum and well managed. FMIC as a tertiary care hospital can be a safe referral site for patients requiring cardiac surgery.

Left Main Percutaneous Coronary Intervention (PCI) in A Patient with Unstable Angina

Sher Ahmad

Interventional Cardiologist, FMIC

Introduction

About 5% of patients undergoing coronary angiography have significant left main coronary artery disease. Both American College of Cardiology (ACC) and European Society of Cardiology (ESC) recommend revascularization for all patients with $\geq 50\%$ stenosis of left main coronary artery disease regardless of symptomatic status.

The anatomic site of left main stenotic lesion and complexity of coronary artery disease are main factors in deciding the management of left main stenosis. For example, isolated left main stenosis involving ostium or shift left main stenosis do well with either PCI or CABG. However, distal left main stenosis or those associated with complex multi vessel disease may do better with surgical revascularization. Other factors include surgical operative risk, LV function, acuteness of clinical presentation, likelihood of actively complete revascularization and patient preference.

Case Report

A 65 years old male known case of hypertension presented with chest pain radiate to jaw and neck, physical examination was unremarkable. We admitted him with diagnose of unstable Angina, angiography revealed tight distal left main stenosis and LCX was non dominant with severe diffuse disease. The patient had complained of chest pain even in time of insertion of BMW wire, we did the PCI to left main without any delay and we received TIMI III flow without any complications, at the end of PCI his chest pain relieved and shifted back to ward. There were three grounds to do PCI (i) patient preference (ii) small size LCX (iii) urgency.

Conclusion

We did the PCI to left main and achieved TIMI (III) flow successfully without complications, as it is a case report so that's why further studies are required to determine the best result of PCI to Left main. It could be a good choice for left main revascularization.

Prevalence of Horizontal Strabismus in Paediatrics Patients at University Eye Hospital

Shir Mohammad Amirzada

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Introduction

Strabismus is a clinical condition in which the eyes are not aligned properly and are pointed in different directions when looking at an object. Strabismus is a type of illness that requires medical and surgical treatment. If left untreated, amblyopia will increase the eyes of patients.

Objective

Prevalence of strabismus in children visiting a University Eye Hospital between March 25, and September 21, 2019.

Methods

The research design was cross-sectional study. The ophthalmology research site was university eye hospital. The total included cases were 1862 Strabismus patients in the age bracket of sixteen and below who were referred for examination and treatment of ocular diseases within the given period. Age and sex information were collected from patients' files and the data were analysed using Microsoft excel. Patients were categorized in four groups by age i.e. (0–1) years, (2–5) years, (6–10) years and (11–16) years.

Results

A total number of 1862 children were examined between March 25 and September 21, 2019 at the university eye hospital. Including their number of strabismus patients during the study was 3.59%. The average age is 9 years. The number of boys 37 (55.22%) and the number of girls is 30 (44.77%). The most common type of strabismus is the esotropia form (73.1%), exotropia were (26.9%). Alternate strabismus (55.2%), unilateral strabismus (44.8%).

Conclusion

This study shows that the most common type of strabismus was esotropia whereas boys were more affected than girls.

Clubfoot, A Significant Cause of Morbidity among Children in Afghanistan

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Introduction

Clubfoot is known as a Congenital Talipes Equino Varus Deformity (CTEV), it is one of the most common congenital foot deformities among children globally, affecting 1-2/1000 live births worldwide. The number of males are affected more than female population. The aim of this study is to evaluate the proportion of CTEV among children at FMIC, Kabul Afghanistan.

Methods

This is a retrospective review of 902 patients with CTEV who were treated at FMIC from 2008 to 2020. Structured checklist was designed for data collection, consecutive sampling technique were employed, and only participants who aged between 10 days to 17 years were included in this study. The data analysis was done using SPSS version 22.

Results

Medical records of 902 patients revealed that 183 (20%) patients were treated conservatively and 718 (80%) surgically. Out of 902 patients; 596 (66%) were male and 306 (34%) were female. We found that 462 (51.2%) participants had bilaterally, 235 (26%) right side and 205 (22.8%) left side. In our study, a higher percentage of operated patients was aged 3-12 years, most of them underwent Ponseti method (conservative), Soft tissue release, tendon transfer and bony procedures (surgery). Our data indicates an increase in the number of CTEV patients each year. The length of stay at hospital was 2.1 days (0 to 3 days). The result of treatment showed that Ponseti method was successful in 92% of participants and surgery in 81%.

Conclusion

CTEV has a wide distribution all around Afghanistan and is not centred to only one specific region. Higher percentage of our patients required surgery because of delay in seeking medical care due to socioeconomic, educational and traditional matters. Therefore, the MoPH (MoPH) should develop guidelines and training Programmes for gynaecologists, midwives and paediatricians about referral of suspected case of CTEV to paediatric orthopaedists for proper and early management of those cases.

A Qualitative Study of Socio-Cultural Factors Influencing Fertility Preferences in Muranga, Kenya: The Case of Young Married Men

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Introduction

In Central Kenya, a relatively high fertility is still sustained in the wake of rigorous contraceptive use Programmes by the government. Many studies have conceptualized fertility preferences in terms of the desire for additional children and ideal family size. However, most of studies on fertility and family planning have concentrated on the perspectives of women with the view to curb the run-away fertility rate in the country. The stalling fertility rates presupposes the need to consider the perspectives of men, especially young men, as partners of women and as individuals who draw upon their social world and histories in making choices. This study set out to understand the socio-cultural determinants of fertility preferences among young married men in Kariara Ward in Gatanga Sub-County of Muranga County, Kenya.

Method

The study employed a cross-sectional study design and used qualitative approaches in collecting data. In-depth interviews were conducted with 22 married men residing in the study area. Only men who were married and were aged between 18 and 35 years were selected to participate in the study. In reaching the study participants, purposive sampling was employed. Key informant interviews were conducted with experts in the study topic who were selected through purposive sampling. Data were collected on sociodemographic characteristics and socio-cultural factors determining fertility preferences among young married men. Data were analysed thematically with study objectives acting as the main themes.

Result

Findings from the qualitative study show that religiosity, value of children, preference for male child, type of marriage, mortality risks, and ethnicity were all important factors that influenced the decisions of young married men on desire for additional children.

Conclusion

Socio-cultural factors have significant influence on husband's fertility preferences. Highly religious married men and those who prefer male children have high fertility and as such exert preferences over their wives when it comes to fertility intentions in Kenya.

A Web-based Database-for Validating Dried Blood Spot Reference Intervals of Amino Acids on Neonates Enrolled in AMANHI Study

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Introduction

Accurate identification of new-borns with inherited metabolic disease can significantly improve patient outcomes. There are gaps in available neonatal reference intervals (RI) for use in Pakistan, where dried blood spot (DBS) testing is still not standard of care.

Methods

Sampling was done from Nov 2017- Feb 2019 in peri-urban communities of Ibrahim Hyderi & Ali Akbar Shah, Karachi located along the Arabian Sea coast covering an area of 6 sq. km with a population of 187, 357. After written informed consent from parents (4359-Ped-ERC) DBS samples from neonates were obtained from the middle part of the heel within 24-72 hours of birth on Whatman filter paper. Samples were kept at -80° C and transported to University of Iowa for analysis in dry ice. Amino acids were analysed on LC-MS/MS. Reference data was uploaded on to the CLIR Web portal as '.csv' excel file to calculate and compare the RI with other laboratories across the globe(n=33,948). The CLIR Outlier Data cleaning was done. If errors were shown, each error was catered until it showed zero errors.

Result

CLIR Outlier Data cleaning was done for ten amino acids of each patient (n=610). Out of the total of the reference data 285 were males and 325 were females. Glutamine was excluded from the study because of >50% outliers. RI for citrulline (n=433) was 9.35-16.19 mmol/L as compared to CLIR-RI of 13.97-35 mmol/L; for ornithine (n=501) was 25.09-45.27 nmol/mL as compared to CLIR-RI of 33.83-93.0 nmol/mL; for valine (n=473) was 99.67-164.05 nmol/mL as compared to CLIR-RI of 133.0-280.0 nmol/mL; for leucine (n=377) was 106.85-177.99 nmol/ml as compared to CLIR-RI of 67.0-146.0 nmol/ml; for alanine (n=532) was 171.20-331.19 nmol/ml as compared to CLIR-RI of 212.0-474.92 nmol/mL; for methionine (n=593) was 14.14-27.46 nmol/ml as compared to CLIR-RI of 15.00-27.46 nmol/ml; for phenylalanine (n=421) was 50.68-82.91 nmol/ml as compared to CLIR-RI of 37.00-68.49 nmol/ml and for tyrosine (n=461) was 56.13-106.7 nmol/ml as compared to CLIR-RI of 38-86.08 nmol/ml.

Conclusion

The web-based Database-Collaborative Laboratory Integrated Reports developed by Mayo Clinic Rochester Minnesota USA assisted us to establish our own reference range for DBS amino acids and compare it to other labs worldwide.

Nursing, Midwifery, Quality and Patient Safety

Session 3

The Association of Gender with Outcomes of Percutaneous Coronary Intervention (PCI)

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Objective

Improvement in secondary prevention and progress in revascularization techniques have led to 45.7% decline in mortality following myocardial infarction. However, women are still being rarely referred for PCI - a life-saving procedure, due to the perceived risk of adverse outcomes following PCI attributable to high risk factors, unfavourable coronary anatomy and plaque composition. This study was conducted to explore the influence of gender on outcomes of PCI; as previous studies have been inconsistent in this regard.

Methods

A prospective study was conducted from October 2015 to June 2017 in the Coronary care unit of Aga Khan University Hospital. Total 184 patients who underwent PCI were included and equally divided into two groups; males as non-exposed (group A) and females as exposed (group B). Patient outcome was noted in terms of mortality following PCI for thirty days. Chi-square test was applied to compare the mortality in both groups. Relative Risk (RR) was calculated. Post stratification Chi-square/ Fisher exact test was applied. P-value <0.05 was considered as significant.

Results

In men, hypertension, diabetes, dyslipidaemia, history of ischemic heart disease and prior history of PCI were 46.7%, 29.3%, 15.2%, 16.3%, and 14.1% respectively. In women, these were 83.7%, 60.9%, 23.9%, 28.3%, and 12% respectively. Mortality rate was 8.7% and seen only in women (p-value 0.007). Significant association of mortality with gender was observed with relative risk 2.095 for women as compared to men.

Conclusion

Despite advancement in interventional technology, female gender is associated with an apparent hazard of increased mortality among patients undergoing primary PCI which persists even after adjustment of differences in baseline risk factors.

Level of Adherence to Safe Injection Protocol Among Health Care Workers Working in Tertiary Care Teaching Hospitals of Peshawar

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Introduction

Breast Cancer is the most common type of cancer, with approximately 182,000 women diagnosed with breast cancer annually in the United States, accounting for approximately 26% of all cancers among women. Each year, 40,000 women die of breast cancer, making it the second-leading cause of deaths among American women after lung cancer. The lifetime risk of dying of breast cancer is approximately 3.4%. The objective of the study was to determine the diagnostic accuracy of p120 in differentiating invasive lobular carcinoma from invasive ductal carcinomas of breast by taking histopathological study as gold standard.

Methods

A total of 200 cases of ILC and IDC were found suitable to include in this study. Each case was given a case number and a medical record number. Demographic details such as name, sex and age were collected. The received specimens were fixed in 10% buffered formalin, grossed and stained with Hematoxylin and Eosin to see the morphology. The morphology was reviewed by a histopathologist to establish the diagnosis. IHC staining for p120 was performed according to the specifications given by the manufacturer including appropriate positive and negative controls for staining. IHC staining was assessed independently and p120 staining was recorded on the pro forma in terms of p120 positive (cytoplasmic staining) and p120 negative (membranous staining).

Results

In our study, out of 200 cases, 38.5% (n=77) were between 20-40 years of age; while 61.5% (n=143) had >40 years of age, mean \pm SD was calculated as 43.94 \pm 7.45 years. 86.5% (n=173) were IDCs; while 13.5% (n=27) were ILCs. Diagnostic accuracy of p120 in differentiating invasive lobular carcinoma from invasive ductal carcinomas of breast by taking histopathology as gold standard was calculated as 81.48%, 88.44%, 52.38%, 96.84% and 87.5% for sensitivity, specificity, positive predictive value, negative predictive value and accuracy rate respectively.

Conclusion

We concluded that the diagnostic accuracy of p120 in differentiating invasive lobular carcinoma from invasive ductal carcinomas of breast by taking histopathology as gold standard is higher and useful breast tumour marker which may be used in our population after validation through other studies.

I Should Have Seen Her Face at Least Once”: Parent’s and Health Providers’ Experiences and Practices of Care Following Stillbirth in Afghanistan

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Background

Stillbirth is devastating for parents and families and associated with long-term psychological and social consequences. The care and treatment of parents and their baby after stillbirth can have a profound impact on parent’s wellbeing. This study aimed to understand bereaved parent’s experiences following stillbirth in Afghanistan.

Methods

In-depth interviews were conducted with a total of 55 women and men. They were those who have experienced stillbirth, female elders, community health workers, and healthcare providers in Kabul province, Afghanistan.

Results

Practices varied across health facilities and providers around their interactions with parents following stillbirth. Inadequate communication was a recurring theme. Insensitive practices included; avoiding or delaying disclosure of the death, not receiving information directly from healthcare providers, and insufficient communication about the circumstances or reasons for their baby’s death. There was a disconnect between what a woman and her husband desired and what a healthcare provider thought. Parents were frequently not asked or given the chance or adequate time to see/hold their baby; and there was no opportunity for memory making, which manifested as profound regret. Facilities were not equipped to separate women who had a stillbirth, and women who had not undergone surgery. Healthcare providers acknowledged that psychological support would be beneficial; but, lack of trained personnel and scarcity of resources contributed towards an un-supportive environment.

Conclusion

These findings can inform improvements to perinatal bereavement care in health facilities and minimise actions that may exacerbate parent’s grief and have long-lasting effects. Given resource constraints in this setting, communication training and improved practices for women experiencing a stillbirth can be considered with longer term goals to develop and implement context-appropriate bereavement care guidelines.

Enhancing Staff Knowledge on Nursing Care Plans to improve Patient Outcome

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Introduction

Nursing care plan is a problem-solving model that makes it a useful tool which promotes critical thinking (Jansson, 2009). Implementing five interrelated steps of nursing care process; assessment, diagnosis, planning, implementation and evaluation is a systematic and dynamic way to deliver nursing care (Pokorski, 2009). It is based on scientific problem solving method, and is essential for all nursing practices applicable in all care settings. Studies have highlighted the difficulties involved in the implementation and use of nursing care in developing countries (Baraki, 2017). While, the largest group of healthcare professionals all over the world are nurses, application of the nursing care process has the key role to achieve quality health care services and quality nursing care (Hagos, 2014).

Purpose

The purpose of this study was to assess nurses' knowledge on Nursing Care Plan (NCP), and determine their perceptions regarding their skills on NCP.

Methods

A descriptive cross-sectional study design was implied. The study population was all nurses and midwives, and the setting of the study was the French Medical Institute for Mothers and Children. Universal sampling technique was used and we recruited all nurses who had minimum one-year experience with FMIC. The data was collected using a standardized questionnaire after ensuring content validity. Descriptive statistics were used to present the results through SPSS version 20. Ethical approval was sought from the Ethical Review Committee of the institution. Participation was voluntarily after giving the consent; and measures were taken to ensure confidentiality of the participants and data.

Results

Total 175 nurses and midwives, 97 (55.4%) male and 78 (44.6%) female participated in the study falling in the age category 68.6% (20-29 years); 24% (30-39 years); 7.4% >40 years. Out of the total 99(56.6%) were married and 76(43.4%) were not married. Majority of the participants 112(64%) were diploma holder and 63(36%) were bachelor degree holder nurses. Majority of the participants 128 (73.1%) were graduates from the public sector; 38(21.7%) from private; and 9(5.1%) were trained abroad. A total of 120(68.6%) participants had less than 5 years of experience with FMIC whereas 113(64.6%) were assigned in critical care areas and 62(35.4%) were assigned in general wards. The study revealed that 98.9% of the participants showed interest to use NCPs and they believe that nursing care has a positive patient outcome. Participants' knowledge was assessed using 10 technical questions; the score gained by RNs and RMs were 36.86% and 29.88% respectively. The t-test result indicates that Diploma prepared nurses perceived that they have better ability (4.68 ± 0.524) to safely administer medicines and other therapies; while bachelor prepared nurses perceived to be better (4.59 ± 0.861) in maintaining patient dignity, privacy and confidentiality.

Conclusion

The demographic characteristics of the participants indicate that they are young generation and investment could be made on them. Although the perception of the participants was good on use of NCPs, their technical knowledge on NCPs was low, hence they require training.

Retrospective Data Analysis: Trauma Patients Admitted Through Emergency Department at a Tertiary Care Hospital in Kabul, Afghanistan

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Introduction

Trauma is any physical damage to the body caused by extrinsic forces and is one of the leading causes of mortality and morbidity around the world. Injuries are a global public health issue and kill millions of people around the world each year. On arrival in the emergency department, the trauma patients need immediate and systematic lifesaving interventions.

Purpose

The purpose of this study was to describe trauma patterns, prevalence and treatment outcome in patients admitted through emergency department of the French Medical Institute for Mothers and Children (FMIC), Kabul Afghanistan.

Methods

A descriptive cross-sectional study was conducted and the medical record files of 116 patients were reviewed retrospectively. Total sampling technique was used and the data of patients admitted from Emergency Department during 2018 and 2019 were collected. The data was collected from the medical records through a tool after ensuring the content validity. Measures were in place to ensure confidentiality of the medical records and the data.

Results

Total 116 patients 74(63.8%) male and 42(36.2 %) female were admitted in FMIC during 2018 and 2019 due to trauma. All patients were children <18 years of age. The prevalence was higher 49(42.24%) in school age. Majority 69(59.48%) patients were brought from health facilities and 47(40.52%) patients were brought directly from the event site. The mean of transportation for 69(59.48%) patients was private transport and for 47(40.52%) patients was ambulance. Predominantly 95(81.96%) patients were accompanied by relatives only. Moreover, 39(33.62%) patients arrived directly to the hospital without initial management.

The result also showed that, fall down was the pre-dominant 64(55.2%) cause of trauma; then RTA 46(39.66%), fall of object 4(3.44%) and blast 2 (1.72%) respectively. Majority of the patients 88 (75.86%) presented with poly trauma; and most of the traumas were blunt 68(58.62%) then complex injuries 44(37.93%). Only 6 patients had full GCS at the time of arrival to the hospital.

The patient outcome indicates that 35(30.2%) of them required intensive care. The average hospital length of stay in the hospital was 8.9 days ranging from 1 to 61 days depending on the nature of injury and patient acuity. Mortality is reported in 11(9.48%) patients.

Conclusion

Trauma is a common cause of injury in children in Afghanistan. Numerous factors affected trauma management which include; pre-hospital care, timely arrival to the hospital, and nature of the injury. Availability of the trauma management means in hospitals are recommended, to timely stabilize the patients for the next level of care.

Ensuring Safe Surgery Through a Standardized and Consistent Approach to Save Life

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Introduction

Safe surgery is vital for patient safety. Significant patient injury and adverse and sentinel events resulting from wrong-site, wrong-procedure, and wrong-patient surgery are ongoing concerns for hospitals. Such events can result from ineffective or inadequate communication between members of the team conducting the surgical/invasive procedure, lack of a process for marking the procedure site, and lack of patient involvement in the site marking. Safe surgery is the fourth goal of IPSG. In the hospital, it is important to follow certain standards where surgeries and other invasive procedures are performed.

Purpose

The purpose of this study was to identify gaps in knowledge and practice among health care providers in the hospital, and implement a uniform approach to ensure safe surgery.

Methods

Data from numerous sources were extracted to identify the gap in knowledge and practice of staff on IPSG- International Patient Safety Goal No-4. The monthly audit results and also JCI external mock audit results which are being conducted through QPSD- Quality Improvement and Patient Safety Department were considered a base for this study. Besides that, a pre-test and post-test was conducted to determine staff knowledge on the subject. The pre-test and post-test questionnaire was derived from two policies which include; surgical site marking and pre-operative verification and time out. Staff were given training on these policies after pre-test and then post-test was conducted accordingly. The scope of this study is the entire hospital with 100% staff coverage during 2020. However, in this paper, the outcome of 153 participants is presented which will be followed with the remaining staff during 2021. MS Excel was used to analyse the data using descriptive statistics. Verbal consents were taken from the staff, and measures were in place to ensure confidentiality of the test results staff comfort.

Results

The document review indicated that these policies were not followed in few out-patient departments and was weak in in-patient areas. Detail orientation is given to the management of these areas and compliance to these policies are ensured. The audit results, conducted through QIPS shows 88.87% compliance during 2019 and 93.51% compliance during the first two quarters of 2020 which shows 4.64% improvement in compliance.

The overall pre-test result shows that staff had 83% knowledge of the hospital policies on IPSG-4. While it increased to 97% in post-test which shows 14% increase in their knowledge. The knowledge gap was almost equal among all including allied health professionals, nurses and doctors. Post-test knowledge improvement was better i.e. 97% in critical care areas as compared to ambulatory services which was 91%. The post-test result indicates an overall 8% increase in the knowledge of staff on these policies.

Conclusion

To avoid wrong patient, wrong procedure, wrong site, and wrong surgery; strategies need to be in place to ensure patient safety. Staff knowledge is vital to ensure compliance with these strategies. It is recommended to cover 100% of staff and meet the hospital target on these measures.

Ensuring Patient Safety Through Effective Communication Among Healthcare Professionals

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Introduction

Effective communication among healthcare professionals in the hospital is imperative. Accurate and efficient interdisciplinary communication is a critical pre-requisite for high-quality care. Nurses, physicians and other healthcare professionals are highly important members of the healthcare system workforce. Thus, identifying strategies that would improve communication among healthcare professionals can provide evidence for practice improvement in the hospital, which will ultimately improve patient outcomes. Effective communication is IPSP second goal; and can improve patient safety. In the hospital, it is important to follow certain standards while communicating; verbal and telephonic orders, critical/panic test results and during patient handover using SBAR tool.

Purpose

The purpose of this project was to identify gaps in practice and improve communication among health care providers in the hospital by improving their knowledge and compliance to the hospital policy.

Method

Data from numerous sources were extracted to identify the gap in knowledge and practice of staff on International Patient Safety Goal No-2 (IPSP-2). The monthly audit results and also JCI external mock audit results which is being conducted through QPSD- Quality Improvement and Patient Safety Department were considered as base for this study. Besides that, a pre-test and post-test was conducted to determine staff knowledge on the subject. The pre-test and post-test questionnaire was derived from three policies which include; verbal and telephonic order, patient handover, and critical/panic test results. Staff were given training on these policies after pre-test and then post-test was conducted accordingly. The scope of this study is the entire hospital with 100% staff coverage during 2020. However, in this paper, the outcome of 131 participants is presented which will be followed with the remaining staff during 2021. MS Excel was used to analyse the data using descriptive statistics. Verbal consents were taken from the staff, and measures were in place to ensure confidentiality of the test results for staff comfort.

Result

The audit results conducted through QPSD shows 93% compliance during the first two quarters of 2020. The document review indicated that policies on Critical/Panic test results were not meeting the requirements of the standard; and there were no handover checklists to communicate patient conditions. These documents were reviewed or developed, and a dedicated person was assigned to review patient records for the completeness of the critical/panic test results. The overall pre-test result shows that staff had 62.33% knowledge of the hospital policies. Whereas it increased to 80.71% in post-test which shows 18.38% increase in their knowledge level. The knowledge gap was more among allied health professionals as compared to nurses then doctors. Doctors rated highest 96% than other professionals in post-test. Similarly, the knowledge gap was higher in those who were working in the ambulatory services as compared to those who were working in general wards and critical care areas.

Conclusions

Patient safety is important. Effective communication which is timely, accurate, complete, unambiguous and understood by the recipient reduces error and results in improved patient safety. Strategies to improve effective communication have to be in place to ensure patient safety.

Poster Presentations

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Is Contracting Out a Remedy to Improve Primary and Secondary Health Services? Evidence from Rural Districts of Sindh, Pakistan

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Background

Contracting out of health services to non-state providers has been widely used in developing countries including Pakistan. Based on three years' experience of contracting out primary and secondary health services, this paper presents findings of third-party evaluation of health services from two rural districts of Sindh Pakistan.

Methods

This was a mixed methods study. Quantitative methods included baseline vs end line comparison using secondary data extracted from district health information system (DHIS), cross sectional survey of health facilities and client exit interviews. Qualitative methods included 10 In-depth interviews (IDIs) with healthcare providers to explore their perceptions regarding barriers and facilitators of contracting out of health services. Healthcare facilities included: 8 rural health centres, 4 taluka headquarter hospitals and 1 district headquarter hospital.

Results

KPIs showed significant improvement in service utilization from baseline. General outpatient department (OPD) (33%), specialist OPD (91%), accident/emergency consultations (106%), in-patient admissions ($\geq 100\%$) alongside diagnostic/laboratory service utilization (86%) increased substantially. Facility based deliveries (37%), major (99%) and minor (172%) surgeries showed significant increase. Preventive services (maternal tetanus toxoid, child vaccination) showed modest improvement (4-19%) in the district (overall) but slight decline in some healthcare facilities. Slight improvement in specialist workforce was noticed, however challenges related to staff retention persisted. Delayed/partial release of funds by government affected staff retention, availability of drugs, equipment and supplies and ensuring availability of water and electricity at health facilities. Most healthcare facilities were in need of repair. Lack of control over government appointed employees coupled with political interference created workforce shortage. Majority clients (60%) were satisfied with service delivery but unavailability of medicine was their main concern.

Conclusions

Contracting out has the potential to improve service utilization. Autonomy over budget allocation and utilization, appointment of all cadre of staff, and improved coordination among all stakeholders are key to successful contracting out.

Primary Hydatid Cyst of the Neck and Diagnostic Challenges Associated with It

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Introduction

Hydatid cyst is a parasitic infection mostly caused by *Echinococcus granulosus*. The most frequent sites of the cyst are liver and lungs. Only a few cases of hydatid cyst located in head and neck have been reported in the literature. Here, we report a rare case of neck hydatid cyst and the diagnostic difficulties raised by this unusual location.

Case report:

A 6-year-old boy with an isolated swelling in the left side of the neck growing over a period of 2 years. The patient also had developed trouble breathing recently. Patient was in generally good health condition and afebrile. A mass was palpable on the left side of the neck which was cystic, slightly mobile, well-defined margins and non-tender. Neck ultrasound followed by CT scan was done. CT report was suggestive of a thymic cystic mass. Laboratory workup was normal. Upon surgery, cyst was found to be a hydatid cyst of the neck. Post-operative course was uneventful and no cysts of other locations were identified with chest x-ray and abdominal ultrasound.

Conclusion:

More often hydatid cyst presents as an asymptomatic cyst, but can be symptomatic due to pressure effects, infection or rupture into the surrounding organs or cavities. Imaging modalities remain more sensitive than serologic tests, especially in diagnosing cysts of unusual locations. In our case, medical imaging reports were more in favour of a thymic cyst. Furthermore, in the study done by Khalifa *et al* and another study done by Masroori *et al* the neck hydatid cysts were diagnosed as infected branchial cyst by CT scan. Also, neck hydatid cyst was diagnosed as a benign cyst with MRI in a study done by Sultana *et al*.

Isolated neck hydatid cyst is very rarely reported even in endemic zones of the hydatid disease, but must be considered in any case of the cystic neck mass, especially in endemic areas or in the presence of cysts of other sites. The diagnosis of such isolated neck hydatid cyst is challenging due to the presence of simulating and more common cystic pathological conditions in the neck. Despite the fact that imaging techniques are sensitive in diagnosing cystic lesions, sometimes they cannot accurately identify the exact aetiology of the lesion.

Successful Reduction of Gastroschisis Using a Surgical Glove in The Absence of Standard Silos

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Introduction

Gastroschisis is a congenital abdominal wall defect with incidence of 1 in 4000 live births. Although several potential causative factors have been linked with the development of gastroschisis, still the aetiology is unknown. The primary goal of treatment is to reduce bowel back to the abdominal cavity with minimizing risk of injury to the bowel or increased intra-abdominal pressure.

The main treatment options are primary closure or delayed closure with use of a silo bag.

The primary fascial closure is undoubtedly the best treatment option, but if the size of abdominal cavity is insufficient to contain all the herniated viscera, a silo is used.

Here we are reporting a case of successful reduction of herniated viscera in a gastroschisis patient using surgical latex glove as a silo in the absence of standard silos.

Case Report

It was a male new-born with 2.7 kg weight and born via C-section. The herniated viscera through defect on the right side of the umbilicus, included small bowel loops and part of the colon. Bowel loops were edematous and matted together. Reduction of all the viscera into the abdominal cavity was not possible. In the absence of standard silos, we decided to use latex surgical glove as a silo bag. Bowel loops were placed inside a surgical latex glove size 8 and the edges of the cuff of the glove was sewn to margins of the abdominal wall defect with continuous 3-

ed 360

degrees every other day in order to push herniated viscera into the abdominal cavity. At 15 days old the herniated viscera was completely reduced to the abdominal cavity. The patient was taken back to the operating room and the defect was repaired.

Conclusion

Congenital abdominal wall defects, especially gastroschisis still remains as a major challenge in Paediatric surgical practice in our country. Considering limited human and material resources in our country, use of surgical gloves as an alternative to standard silos is a method being inexpensive and easily available which may affect the final outcome of management of gastroschisis patients in a positive way.

Gender and Age Group Distribution of Fanconi Anaemia Diagnosed by Chromosomal Breakage Test

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Introduction

Fanconi anaemia (FA) is an inherited bone marrow failure syndrome. The hallmark of FA is defective DNA repair that results in extreme sensitivity to DNA crosslinking agents. The screening laboratory test for this defect involves assessment of chromosomal breakage upon exposure of cells to diepoxybutane (DEB) or mitomycin C (MMC).

Objective

To determine the gender and age group distribution among Paediatric aplastic anaemia patients with strong positive chromosomal breakage test.

Material & Methods

This was a cross sectional descriptive study covering a period of 6 months from 1st August 2016 to 31st December 2016. This study was conducted at Section of haematology, The Aga Khan University (AKU) Hospital Karachi. Paediatric patients age 1- 18 years with aplastic anaemia on bone marrow biopsy was enrolled. Five ml of venous blood in sodium heparin tube collected for detection of FA by chromosomal breakage test using MMC. As per institutional protocol, results are defined as negative (< 1), weak positive (1-5) and strong positive (>5 breakage per cell). Ethical clearance was taken from ethical review committee, AKU. Statistical package for social sciences 21 was used for data entry and analysis.

Result

One hundred fifty-six Paediatric patients with aplastic anaemia were enrolled. There were 42 (27%) females and 114 (73%) males. The mean age of all patients was 8.99 ± 4.60 years. Frequency of different age groups was found 72 patients (46%) were in age 1-8 years, 40 patients (26%) were in 9-12 years of age, 44 patients (28%) were found in 13-18 years of age and the disease was common (8.3%) strong positive chromosomal breaks in the age group of 9-12 years old. Chromosomal breakage test in patients with aplastic anaemia was strong positive in 32 (20.5%) while weak positive in 30 (19%) patients. Gender-wise analysis showed 23 of 114 males (20.1%) and 9 of 42 females (21.4%) were positive for chromosomal breakage test which was clinically insignificant.

Conclusion

Chromosomal breakage test was strong positive in (20.5%) among Paediatric aplastic anaemia patients with male to female sex ratio of 1:1 and the disease was common in the 9-12 years' age group.

Frequency of Inherited Platelet Disorder in A Tertiary Care Academic Centre

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Introduction

Hereditary functional platelet disorders are a rare group of platelet defects which are characterized by a life-long bleeding diathesis with normal or low platelet counts. Most common defects are Glanzman's thrombasthenia and Bernard soulier syndrome. Glanzman's thrombasthenia, an autosomal recessive disorder, is characterized by absence of surface membrane (GpIIb/IIIa). Aggregation is seen with ristocetin and there is no aggregation with ADP, adrenaline or collagen. In Bernard soulier syndrome, an autosomal recessive disorder, there is lack of Ib glycoprotein and absent or markedly reduced platelet aggregation with ristocetin. Platelet aggregation test is used as a screening tool to diagnose inherited platelets disorder.

Objective

To determine the frequency of inherited platelet disorder by platelet aggregation study.

Materials & Methods

This was a cross sectional descriptive study covering a period of 6 months from 1st August 2019 to 31st January 2020. This study was conducted at Section of haematology, The Aga Khan University (AKU) Hospital Karachi. Venous blood, was collected into 3.2%/0.109M citrate in a ratio of 1:9, samples were transported to the laboratory at room temperature. PRP is prepared by centrifugation at 20°C for 10 minutes at 150-200g. Addition of a platelet agonist to the PRP leads to platelet activation, agonist used are ADP, epinephrine, ristocetin, and collagen.

Result

108 samples received for platelet aggregation study, 34 cases were positive for platelet dysfunction which includes glanzman's thrombasthenia (n=20), Bernard soulier (n=6), ADP receptor defect (n=4), Epinephrine receptor defect (n=3) and defective response to all agonist (n=1). While 55 cases were normal, 09 cases were not diagnostic and 10 cases were not performed due to low platelet count and transfusion history.

Conclusion

Platelet aggregometry detected platelet dysfunction in 31% of the test performed in the laboratory. Glanzman's thrombasthenia and Bernard soulier were the most frequent inherited platelet disorder.

Laboratory Based Experimental Study on Microbial Spoilage of Commercially Available Fruits

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Background

Microorganisms are everywhere. They can be found in the air, in water, in soil, on animals and even on humans. Some are beneficial, such as those used to make fermented dairy and meat products. Others cause spoilage of various food products. Eating fruits is a healthy practice due to its nutritional composition but when it gets spoiled by microbes, it can be harmful for human consumption. Microorganisms have been reported to cause extensive deterioration of fruits. Some of these microorganisms cause rotting, discoloration or fermentation of the fruits which affect their preservation.

Methods

The study was done to identify and analyse microbial diversity that causes the spoilage. Pour plate method was used for the isolation of microbes from spoil fruit. A portion of the fruit was aseptically inoculated into the beaker; it was homogenized and then diluted. The colonies were identified by standard bacteriological procedures. Gram's staining was performed to determine if the organism is gram negative or gram positive. Further confirmatory biochemical tests were done such as catalase, coagulase, and oxidase. The identification of the isolated fungi was done both macroscopically and microscopically.

Result

This study and experiments revealed that the rotten or spoiled fruit possess appreciable number of microbes. The Microorganisms isolated and observed were bacteria and fungi majorly. This is due to various processes taking place in the rotten fruit which favoured bacterial and fungal growth. It could also be as a result of the moisture content of the fruit as well as the difference in the nutritional composition of the fruits.

Conclusion

This work finds that there are microorganisms that could be responsible for inducing spoilage in the fresh fruit. Fruits are a good source of nutrient and could be used for many applications. However, to reduce the susceptibility of the fruit to microbial spoilage and to ensure its effectiveness in different applications and safety measures should be taken. Hence if you want to prevent spoilage of food by micro-organisms, you must remove the conditions which are appropriate for their growth and preserve them with the best possible techniques.

Non-Cystoscopic Removal of Retained Ureteral Stents Without Anaesthesia and Sedation in Children, at a Tertiary Care Centre, Kabul- Afghanistan

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Introduction

Ureteral stents are small tubes inserted into ureter to prevent from blockage of urine and urine can pass easily from kidney to bladder. Ureteral stents also called JJ stents, are used before and after operations due to renal stones and hydronephrosis on ureters. JJ stents are removed by cystoscopy under Anaesthesia. Removal of these stents in the absence of cystoscopy, need open surgery. JJ stents are applied during open surgery to keep suture line safe, ensure easy urine passage from operative area and patients can discharged from hospital soon after operation. JJ stents can be removed according to the types of procedures from 2 to 24 weeks after applying of stents. Removal of stent without cystoscopy reported only in one centre in China under sedation. Here, we have started to remove the ureteral stents without cystoscopy and without sedation. This method of removal of ureteral stents is time saving, safe and cost effective.

Method

A prospective case series reviewed. All 10 patients underwent JJ stents removal without cystoscopy with or without sedation at French Medical Institute for Mothers and Children (FMIC) between January and April 2020. Seven children were male and 3 were female. In this method we removed the stent by using an 8 Fr Nasogastric tube and internally applied prolene 4.0, this prolene was used like a grasping forceps.

Result

without use of cystoscope, but in one case we could not remove the JJ stent and shifted to removal by cystoscopy.

Conclusions

Removal of JJ stent without use of cystoscope with or without sedation is a cost effective procedure and can be used in any centre where cystoscope is not available, beside that it's very safe since we don't need to give Anaesthesia for patients during procedure. Since we do the procedure in awake child so we don't need IV access and with this the risk of infection reduce much for patient. This procedure is easier to perform in adult ages than children because they tolerate better. Generally, 90% of our cases were successful and we did not have any complication during procedures.

IV Band – An Innovation for Needle Dread

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Objective

The aim of the project was to minimize the intravenous cannulation dread among Paediatrics population by implementing an innovative solution that is accessible, appropriate and acceptable to the consumers.

Approach

A three day CCIT Paediatric hackathon v2.0 was hosted by Aga Khan University Hospital, Karachi. The hackathon involved 110 participants from multi-disciplinary backgrounds including Medicine, Business and Computer Science. Moreover, participants' were divided into 16 groups to design innovative ideas for AKU's prospective children's hospital.

Result

On completion of three days' innovative drive; we were able to make cannulation pain free, and consumer-friendly. We entitled innovation as IV Band. Firstly, the vein was detected by a vein scanner then area was cleaned using alcohol swab after that local anaesthetic cream was applied. Afterwards, a cartooned patch was placed to distract the patient. Before approaching patient, the cannula was embedded in the loop of reservoir box. The cannula was inserted simultaneously with a narrative story to divert child's attention. However, the needle is virtually invisible to child because of the cartooned flap opposite to the child. Finally, stylet is withdrawn and the flap is closed. Several studies have repor

reported intravenous cannulation as worst source of pain. Moreover, the child centricity of IV band will result into more parents' satisfaction.

Conclusion

In future, this idea can be more customized by using modern gadgets to yield health promising benefits to the patients. We can integrate Gadgets such as Embedded Chip system e.g. ICM-20648 which supports gyrometer, accelerometer, Digital-output temperature sensor and software drivers that are fully compliant with Google's latest Android release. Another gadget is UV Light within the reservoir box to minimize the risk of infections and phlebitis at the site of cannulation, furthermore, Complete Pulse Oximeter and Heart-Rate Sensor Solution can be used with Integrated LEDs and Optical Sensor like NIR.

The First Documented Clinical Practice of PDT (Percutaneous Dilatational Tracheostomy) In Shaheed Sardar Mohammed Dawood Khan Hospital (SSMDKH).

Fazel Khaliq Omari
M.D, Otolaryngologist

The history of tracheostomy dates back to ancient medicine, written between 2000 and 1000 BC and Ebers Papyrus (1550 BC), both mention cutting in to the neck to access the wind pipe. Ciaglia P et al in 1985 described the PDT for first time. After Ciaglia the other authors presented different modifications in Ciaglia's method. Before 2017 in SSMDKH we just use the open surgically created tracheostomy method; in the beginning of 2017 we started using PDT in SSMDKH, with encouraging results.

Method

SSMDKH is a complex hospital in Kabul. The study was conducted from March 2017 up to Sep 2017. Our study was a case series descriptive observation. The material was the files of the patients in the hospital, literature review.

Result

During 6 months we performed 13 PDT, among them 2 cases were converted to open tracheostomy. 12 cases were done on bedside in ICU, and one case was done in operation room. The time consumption of each case was between 10-15 minutes. All of the cases were performed without Bronchoscope and also without the presence of Anaesthetist (in ICU). We observed no major complications (bleeding, alveolite, esophageal perforation, and pneumothorax) during and early after operation. In one study (7) conversion of PDT to open procedure is also considered as major complication, in this case we have two.

Conclusion

PDT is a safe, simple to do, minimal time consuming procedure 'we can easily perform PDT on the bedside of the ICU patients with little or no major complications. The use of bronchoscope is not mandatory in performing PDT. The superiority of surgeon over Anaesthetist and Internist is that in case of difficulty in PDT, the surgeon can convert PDT to open tracheostomy.

Sexual and Reproductive Health of a Cardiac Patient

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Objective

Sexual health is an important quality-of-life concern for patients. The purpose of this literature review is to rule out the effects on sexual health due to cardiac diseases. Cardiac patients often experience changes in their ability to engage in and enjoy a wide-ranging of sexual activities, which can result in less satisfying sexual involvements

Methodology

A systematic and comprehensive literature search was conducted to find applicable studies. A total of 30 studies were screened, and 12 studies were included in the review. The key term used in searching was the Sexual health of cardiac patients, Sexuality and cardiac disease, Pregnancy after Cardiac Surgeries.

Result

Nurses Attitude, confidence, Responsibility, Clinical practice and knowledge provides an optimistic approach in sexual health counselling. First of all, the health care professionals should get specific training in sexual assessment, communication technique and sexual counselling to deal with this sensitive issue, they should have a proper knowledge, good communication skills and should have different methodology to counsel patient for their sexual problems and how they can resume their sexual activity. Health professional Barriers like cultural inappropriateness, embarrassment, comfortability and gender stereotypes needs to be addressed. The paper hopes to indicate that by working on three modifiable levels we can achieve patient satisfaction. The level includes Macro levels, in which we can deal with language and cultural barrier , Meso Level; that is hospital environment and staff knowledge , and last but not the least Micro level that the interpersonal relationship between patient and their partner with Healthcare team.

Conclusion

Cardiac surgeries are critical and their post-surgery complications are a real struggle. But with proper patient education on complications (regarding sexual and reproductive health, psychological health, and cardiac drugs effects) and its prevention by a healthcare professional before discharge can help in improving patient quality of life post-cardiac surgery.

Severe Neck Cellulitis with Compression of Larynx; Role of Initial Empiric Antibiotic Therapy: Case report

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Objective

Deep neck infections (DNI) refer to various infections like cellulitis, abscess, or necrotizing infections occurring within the layers of cervical fasciae. Paediatric deep neck space infections are a distinct entity from adult deep neck space infections as lymph nodes are more predominant in different anatomical sites in children, resulting in different clinical presentations and inciting pathogens from drainage areas affected.

Methodology

A 5-year-old child presented to emergency department of FMIC with serious neck cellulitis on.

Results

The patient was referred from Khost Provincial Hospital with one-week history of diffuse neck swelling and high fever. Upon arrival in the Emergency Department (ED) the patient was in severe respiratory distress with stridor and there was marked edema of frontal aspect of neck and face with erythema of superficial skin. After stabilization in emergency department admitted to ICU and workup started. WBC was 47.99000 with 86.29% neutrophilia and CT-scan revealed marked soft tissues swelling of neck and upper chest compressing the larynx. Parenteral antibiotic therapy with meropenem and vancomycin continued for two weeks then shifted to oral linezolid for another two weeks resulted in complete resolution of edema and inflammation.

Conclusion

Children of all age groups are affected by deep neck space infection in low socioeconomic countries. Considering high level of antimicrobial resistance, we recommend that initial empiric antibiotic therapy with β -lactamase inhibitor or β -lactamase-resistant antibiotic can prevent serious complications like airway compromise, jugular vein thrombosis, carotid artery aneurysm or rupture, mediastinitis and sepsis. Lawrence et al., 2017 and Brook et al., 2019 also promoted the role of initial empiric antibiotic therapy with broad spectrum antibiotics in preventing of complications and abscess formation.

Eruption Cysts or Tooth Eruption Hematoma: A Case Series

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Introduction/ objectives

Eruption cysts are benign cysts that appear on the mucosa of a tooth shortly before its eruption. They may disappear by themselves but if they hurt, bleed or are infected they may require surgical treatment to expose the tooth and drain the contents. Here we present a case report of eruption cysts presenting with complaint.

Method

An 8-year-old male child along with his parents reported to FMIC Dental Department with the chief complaint of bluish black swelling on the gums in the front region of the upper jaw.

Parents of the child were fearful; assuming the lesions to be malignant tumour. History of the case revealed that 61 was extracted 1 year back due to caries. The lesions started appearing 2 weeks back as translucent swellings over normal mucosa and it slowly increased to its present size. The colour of the lesions also slowly changed from its normal red mucosa to the present bluish black colour 1 week back. The clinical condition was explained to the parents and they were advised to observe the swellings for another 2 weeks as it may rupture on its own and may not need any surgical intervention. Patient reported after 15 days. The swelling was still present and dull aching pain was present on mastication. The surgical procedure was explained to the parents and consent was obtained for the same. A blood investigation was carried out before the procedure. The treatment included incising the eruption cyst with blade and draining the contents of the cyst.

Result

The patient was reviewed after one week and a normal eruption pattern was observed.

Conclusion

Disturbances of the dental development may result in anomalies which many times appear in the form of swelling of the overlying mucosa of the erupting deciduous or permanent teeth, mostly in children. Eruption cyst is one such lesion associated with erupting teeth which on numerous occasions, due to its size or peculiar, purple-blue or bluish black colour may result in tumour scare among the patients or concerned parents of a child.

Comparison of Administrative Data with Health Coverage Survey

Samsoor Rahat

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Introduction

Routine immunization plays a vital role in reducing mortality and morbidity from vaccine-preventable diseases (VPDs). The data department of NEPI collects routine immunization data regularly from 2270 HFIs, which provide EPI services over the country. In this study, we will compare the administrated routine immunization coverage with AHS-2018 survey data and measure the difference between them regarding EPI's leading indicators. Moreover, to know the factors which caused this difference.

Methodology

It is a descriptive study of secondary data that existed in the EPIMIS database and survey report at national level. The retrieved data was managed by using Ms. Excel 2016 and statistically analysed by Epi Info7.2.

Result

Coverage of Penta-3 shows 83% based on Administrative data, while the AHS survey shows 61% coverage at the national level, this shows a 22% difference between these two sources of data for the same antigen. Coverage for full immunized children based on the AHS-2018 report indicates 51%, while administrative data reported 79% coverage, which shows a 28% difference.

There are minor and significant differences at provincial level. Urozgan province has 3% coverage for Penta-3 based on the AHS report and 59% coverage based on reported data, which shows the highest difference among the provinces. Nimroz province reported 92% coverage for Penta-3, but AHS shows 88%, which shows the least difference between these sources at the provincial level. In Balkh province the reported and survey coverages are same for Penta-3.

In some cases, the survey reported higher coverage than the administrative data. For example: in Bamyan and Farah provinces, the coverage for Penta-3 is 87% and 65% in reported coverage, while the AHS survey report shows 89% and 75%, respectively.

Conclusion

There is still an unacceptable difference between administrative and survey coverage data for EPI in Afghanistan; this shows that there is the gap in the Programme, e.g., administrative data might have over reported figures, no specific denominator for calculation of coverages, and data quality issues in reported data.

Purpura Fulminans

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Introduction

Purpura fulminans is a rare syndrome of intravascular thrombosis and hemorrhagic infarction of the skin that is rapidly progressive and is accompanied by vascular collapse and disseminated intravascular coagulation. It may be classified as (1) neonatal, (2) idiopathic, or (3) acute infectious.

A ten-month-old child was introduced to FMIC with high grade fever, shortness of breath for four days and diffuse skin lesions for two days. The skin lesions were purpuric initially but rapidly got necrotic and erupted bullae evolving the tips of the fingers and a huge cellulitis of left side of the body especially the axillary region has been developed.

On arrival to the hospital the child was in critical condition with the following vital signs:

SO₂:75%, RR:50, BP: 80/50, Pulse:170b/min, Temp:39C. On auscultation the chest was harsh with bilateral crackles and intercostal and subcostal retraction was visible and the child was severely distressed. The child had tachycardia and radial pulse was weakly palpable and the CRT>3sec. The abdomen was scaphoid and the liver was palpable more than 3cm below the costal margin and the extremities were cold and mottled. He was diagnosed as case of severe sepsis & purpura fulminans. Multidisciplinary approach started and patient was treated with meningeal dose of Vancomycin plus Meropenem for 3 weeks and the necrotic tissues were debrided properly and during follow up visit it was seen that the region was filled with newly grown tissues and also the left gangrenous fingers amputated as well.

Purpura fulminans (PF) is an acute life-threatening disorder that most commonly occurs following infection. It is a result of microvascular thrombosis that leads to tissue necrosis, skin infarction and hemorrhage. Patients with PF are extremely ill-appearing, with fever, hypotension, and bleeding. Laboratory evidence of disseminated intravascular coagulation (DIC) is often present.

Conclusion

Purpura fulminans is an acute, rare, often fatal, thrombotic disease that treatment should be started without delay with high likelihood of mortality. This is the value of team work.

The Evaluation of Effective Factors of Unintended Pregnancy Among Pregnant Women in Comprehensive Health Centres (Qaleh Bakhtiar, Qaleh Wazir Chahardehi and Golkhana) Kabul

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Introduction

Unintended pregnancy is one of the major public health problems in the world, the negative consequences of which affect the family, mother and baby. Women with unintended pregnancies are more likely to experience high blood pressure, miscarriages, premature births, and low birth weight babies due to unpleasant feelings during pregnancy.

Objective

The aim of this study was to investigate the factors affecting unintended pregnancies among pregnant women in the comprehensive clinics of Qaleh Bakhtiar, Qaleh Vazir Chahardehi and Golkhaneh in Kabul in the first two months of winter 1998.

Method

The present study was a descriptive-analytical cross-sectional study among 306 pregnant women who referred to Qaleh Bakhtiar, Qaleh Wazir Chahardehi and Golkhana in Kabul during the first two months of winter 1998. Data were collected by a researcher using a standard questionnaire and face-to-face interviews with pregnant women. STATA version 14 was used to analyse it and perform Chi square test and Binary logistic regression test.

Result

In the present study, the rate of unintended pregnancy was reported to be 37.9%. The high risk factors for unintended pregnancies in the current study were age over 36, lack of family planning awareness, number of pregnancies, and failure to use contraception. The main source of information was radio and television.

Conclusion

The factors that were effective in this study on unintended pregnancies can be used as key indicators for advice in choosing methods of contraception.

Infantile Presentation of the Canal of Nuck Hernia Containing Uterus and Ovary: A Case Report

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Abstract

Hernia of canal of Nuck, a rare congenital entity, results from the incomplete closure of processus vaginalis in female infants through which pelvic contents herniate into the inguinal canal to the labia majora. Authors present a case of the canal of Nuck hernia in a 5-month-old girl presented as palpable lump in the right labia majora which was diagnosed by ultrasonography.

Objective

The objective of this abstract is to present a case of rare congenital anomaly

Methodology

This is a case report; for which patient history and ultrasonographic examination were used.

Result

Indirect inguinal hernia of the canal of Nuck containing the uterus and the ovary is a rare congenital entity among females in infancy and early childhood which present as a labia majora mass. Ultrasound is the non-invasive diagnostic modality of choice which can well depict the abnormality. Various differentials are described for a labial mass in a female child including an inguinal hernia, hydrocele, lymphadenopathy, Bartholin gland cyst, infection/abscess, inguinal gonad, endometriosis as well as a benign and malignant neoplasm. Surgical correction is almost always the treatment of choice in children.

Conclusion

Hernia of canal of Nuck as a result of patent processus vaginalis, containing the uterus is a very rare entity, where in our case herniation of the uterus and right ovary was seen adding up to the number of few reported cases. Ultrasound is the modality of choice for diagnosis and surgical correction is the treatment approved by majority of Paediatric surgeons.

Comparative Missing Coverage of Penta3 and Polio in Afghanistan, 2017-2019

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Objective

Children in Afghanistan are suffering from vaccine preventable diseases including polio. The percentage of children receiving the diphtheria, tetanus and pertussis vaccine, as well as hepatitis and H. influenza (Penta3) is often used as an indicator of how well countries are providing routine immunization services. As a direct result of immunization, the world is closer than ever to eradicating polio, with only two remaining polio endemic countries – Afghanistan, and Pakistan. By this study, the missing coverage of Penta3 and polio is compared.

Methodology

It is an epidemiological comparative study which is conducted using analysis of secondary data set reported via EPI and Polio databases in Afghanistan. We accessed and used line-lists from 2017-2019 secondary data set to analyse the epidemiological status of Penta3 and Polio Sum of average missed coverage in the country. Using Epi Info 7 and Microsoft Excel, we calculated descriptive measures including frequencies, sum of average and percentages that generated proportions, trend, and graphs.

Result

Overall, the trend of OPV Sum of average missed coverage vaccination has increased in the country in 2019 than two years before. The results could be summarized in three types.

Type 1: In provinces where there is higher polio campaign missing trend, there is lower penta3 missing trend. It means that the reason could not be trust or mistrust about the campaigns. This could be due to harsh roads and transport routes.

Type 2: In provinces the Polio campaign-missing trend are high, but the penta3 average missing trend is not. It could be either a result of propaganda, or political elements that affect the polio campaign. The low number of missing trends in penta3 shows that people trust the vaccination, and are voluntarily taking them.

Type 3: while both trends are proportionate, which shows that people do not trust the vaccination. More awareness must give to the people in this province.

Conclusion

Overall, the trend of OPV Sum of average missed coverage vaccination has increased in the country in 2019 than two years before. In the meantime, the Penta-3 Sum of average missing coverage remains not much changed. This shows that there are elements that affect the Polio campaign but does not affect the penta-3 coverage percentage. Further analysis is needed to reach the root of problem.

Eliminate Medical Errors as A Result of Wrong Patient Identification

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Background

Correct patient identification among healthcare professionals in the hospital is imperative, and it is an important aspect of quality care. Patient identification is the first goal of the International Patient Safety Goals (IPSGs). JCI recommends to identify patients using two identifiers i.e. Full Name and Medical Record Number. Patients need to be identified before any procedure, treatment and diagnostics. The intent of correct patient identification is twofold: First, to reliably identify the individual as the person for whom the service or treatment is intended; Second, to match the service or treatment to that individual. In our context patients are identified using their full name and medical record number.

Purpose

The purpose of this study was to identify gaps in practice and improve patient safety in the hospital through improving staff knowledge and compliance to the hospital policy.

Methodology

Data from numerous sources were extracted to identify the gap in knowledge and practice of staff on IPSG-1 International Patient Safety Goal No-1. The monthly audit results and also JCI external mock audit results which are being conducted through QPSD- Quality Improvement and Patient Safety Department were considered as base for this study. Besides that, a pre-test and post-test was conducted to determine staff knowledge on the subject study. The pre-test and post-test questionnaire was derived from a policy which is; Identify Patient Correctly. Staff were given training on this policy after pre-test and then post-test was conducted accordingly. The scope of this study is the entire hospital with 100% staff coverage during 2020. However, in this paper, the outcome of 84 participants is presented which will be followed with the remaining staff during 2021. MS Excel is used to analyse the data using descriptive statistics. Consent was taken from the staff, and measures were in place to ensure confidentiality of the test results and ensure staff comfort.

As part of the intervention, automated systems (e.g. Electronic Unique Patient Identification (UPI) barcode system) was initiated by the hospital in in-patient areas in 2019 and expanded to other areas in 2020. This was done to decrease the potential for identification errors, where feasible.

Results

The audit result conducted through QPSD shows that there is a decrease in compliance (96.51%) to the policy during the first two quarters of 2020 as compared to (99.18%) in 2019.

The overall pre-test result shows that staff had 73.4% knowledge of the hospital policy. While it increased to 97.39% in post-test which shows 23.99% increase in their knowledge. The knowledge gap was more among allied health professionals as compared to nurses then doctors; however, they had highest knowledge gain after post-test than other groups.

Conclusion/recommendation

Patient identification errors have been one of the most serious global healthcare quality issues for patient safety. Errors in patient identification are the root causes of many adverse events in the hospitals. Strategies to identify patients correctly are vital and have to be in place to ensure patient safety.

Ct Features of Mature Teratoma in The Mediastinum of Two Young Adults- Report of Two Cases

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Background

Germ cell tumours prefer gonadal regions, but they can be expected in extragonadal sites such as the anterior mediastinum, which is the commonly involved region after gonads. Amongst germ cell tumours, teratomas are the rarer subtypes which develop in the anterior mediastinum.

Case presentation

The authors present two adult patients, a male, and a female, both complaining of chronic chest pain and cough. Chest CT scans were performed revealing characteristic CT features of mature teratomas in the anterior mediastinum which were extending to the superior mediastinum in both patients. No complicating features were detected.

Conclusion

Germ cell tumours are involving the mediastinum, however, amongst, all germ cell tumours, teratoma is the least common type arising in the mediastinum, and a chest CT scan is considered the imaging investigation of choice. Surgery is the best option and patients may have a very good prognosis.

Massive Inguino-Scrotal Herniation of Urinary Bladder in an Infant (Scrotal Cystocele)—Case Report

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Background

Congenital inguinal hernias comprise the most common surgical cases in children, and herniated contents can be small bowel loops, and mesentery. However, herniation of urinary bladder through inguinal canal into the scrotum is extremely rare.

Case presentation

Authors present a case of a massive herniation of urinary bladder into the scrotum in a 1-year-old male infant who presented with markedly enlarged scrotum. IVU was performed demonstrating mild to moderate hydronephrosis and hydroureter. The urinary bladder was opacified in the late images, showing pear shaped appearance below the pelvis, consistent with scrotal cystocele.

Conclusion

Extremely rare case of massive urinary bladder herniation into scrotum, as we were able to find only one reported case in literature search. Enlarged scrotum in infants can be due to multiple causes in which one of them can be herniation of urinary bladder and it is key to know the contents of hernia sac before any intervention.

Type IIB Urethral Duplication in Young Adult—A Case Report

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Background

Urethral duplication also known as supernumerary urethra is an extremely rare condition discovered in adults where most of them are diagnosed in childhood. Overall, it has 3 types according to Effman et al. It is described as closely positioned 2 or more tracts of smooth musculature covered by the mucosal lining.

Case presentation

A 24-year-old adult male complaining of dysuria was referred to the radiology department for the retrograde urethrography and micturating cystourethrography procedures. Normal anterior urethra but two 2 distinct urethral channels were opacified in the posterior urethra. During micturition phase, double posterior urethral channels were opacified from the neck of the urinary bladder ending with single meatus at the junction of anterior and posterior urethra, classified as type IIB according to Effman et al. classification

Conclusion

This is an extremely rare type of duplication of the urethra (type IIB) with late presentation. Further studies may be required regarding the surgical management as there is no up to date standard surgical technique.

Epidemiological Analysis of Measles Coverage of First, Two Quarters of Zabul Province 2018,2019 And 2020

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Background

Globally Measles is a life threatening vaccine preventable disease. In 1980, before widespread vaccination, measles caused estimated 2.6 million deaths each year, in 2008, there were 164 000 measles deaths globally – nearly 450 deaths every day or 18 deaths every hour. More than 95% deaths occur in Developing Countries. Afghanistan is from the developing countries and have more motility from measles as we are in the elimination stage of the measles. But still outbreaks are reported from Zabul province. Measles is a highly contagious viral disease, which affects mostly children. It transmitted via droplets from the nose, mouth or throat of infected persons. Initial symptoms, which usually appear 10–12 days after infection.

Method

A retrospective descriptive study is designed on available measles coverage data in the Zabul province, for the period of 1st two quarters of 2018, 2019 and 2020, consisting those children aged from 9 – 24 months. We analysed the various aspects of the data in term of time, place, person and compare the 3 years' data by age and Expanded Programme on Immunization strategies as fix, outreach and mobile.

Result

Target for the first 6 months of 2018, 2019 and 2020 was 36726 for under one year children and (71568 for under two years' children, out of these 22933 (62%) <1yr children and 25036 (35%) <2 yrs. children are vaccinated cumulatively. 10874 (47%) of them were female <1 yrs. Measles 1 coverage in <1 yrs. was 22933 (62%), and <2yrs 25036(35%) in 2018, 2019 and 2020 respectively. Fix area coverage is 8791 (38%), Mobile 3729 (16%) and Outreach 10413(45%) in 2018, 2019 and 2020. 9 districts have measles 1 coverage, less than 60% and two districts coverage 80%. Left out children is 2644 (32%) of the total children. Dropout between Measles 1 and Measles 2 doses is (28%), (22%) and (43%) in 2018, 2019 and 2020 at provincial level.

Conclusion

We have vaccinated less number of the children compared to sated target. Outreach activities performance was weak. Mostly, the children did not receive the second dose of Measles vaccine. With this coverage we will not be able to stop the current measles outbreaks. Further investigation is needed for field data cross check the data and special interventions are needed to boost up the measles coverage.

Extended Drug Resistant *Salmonella Typhi* Osteomyelitis: Rare Case Report

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Introduction

Salmonella typhi infection has many clinical manifestations, commonly gastroenteritis, bacteraemia with or without secondary seeding, or asymptomatic carrier stage. Over the last three decades emerging antimicrobial resistance in *Salmonella* is becoming a global concern including the recent epidemic of extensive drug resistant strain in Pakistan. Most cases infected with XDR strain of *Salmonella typhi* result in bacteraemia leading to enteric fever with or without complications. *Salmonella* rarely causes osteomyelitis however few cases are reported with OM as a result of either pan sensitive or multidrug resistant *Salmonella typhi* infection. Treatment of XDR *Salmonella typhi* OM is quite challenging. By far no standardized guidelines, randomized control trials, case reports or studies are available indicating drug regimens or duration of therapy in OM secondary to XDR *Salmonella typhi*. We report first ever case of OM secondary to XDR *Salmonella typhi* in Pakistan.

Objective

To describe the clinical course in XDR *Salmonella typhi* osteomyelitis

Case description

A 38 years old gentleman recently presented with fever for and backache. A clinical diagnosis of osteomyelitis was made. Blood cultures showed extensive drug resistant *Salmonella typhi* infection. Patient also had raised ESR (erythrocyte sedimentation rate) and CRP (C-reactive proteins). MRI spine done showing osteomyelitis.

Result

Patient was started on antibiotics depending upon the drug susceptibility, treatment response is assessed based on declining trends of ESR and CRP levels.

Conclusion

Emerging XDR *Salmonella typhi* infection is a threatening situation. It is important to understand its different clinical manifestations, availability of antimicrobials and response to therapy.

Prevalence of Colistin Resistant *Acinetobacter* spp., *Pseudomonas Aeruginosa* and *Klebsiella Pneumonia* Before and After the Introduction of Antibiotic Stewardship Programme

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Background

In this new and modern era with the introduction of newer and targeted antibiotics we have to face more serious and threatening situations like emergence of antibiotic resistance. Resistance to colistin is most commonly encountered in organisms like *Acinetobacter* spp, *Pseudomonas aeruginosa* and *Klebsiella pneumoniae*. These colistin resistant strains are most commonly found in hospitalized patients and result in increase in mortality and morbidity of patients.

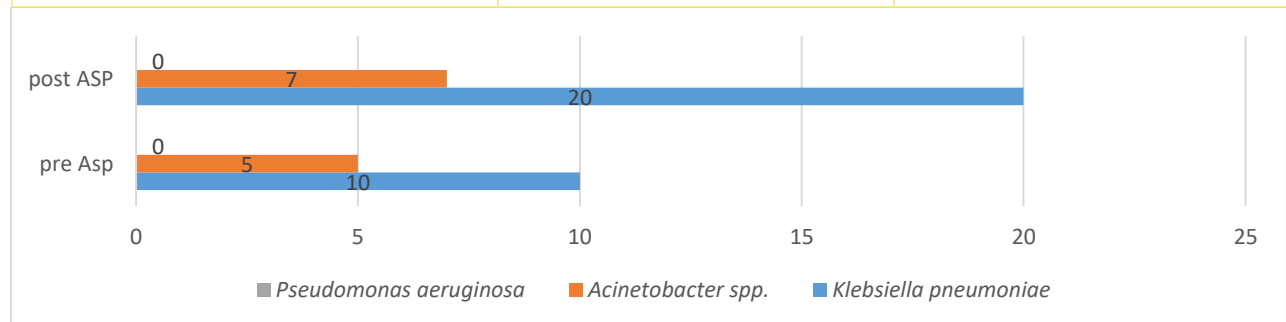
Material and methods

We conducted this retrospective pre and post interventional study at a 700-bedded tertiary care hospital in Karachi, Pakistan on patients admitted in AKUH who are infected with colistin resistant *Acinetobacter* spp., *Pseudomonas aeruginosa* and *Klebsiella pneumoniae* before and after the introduction of antibiotic stewardship Programme.

Result

The data included 121 patients of which 45 were from pre-ASP period and 76 from post ASP period.

	Pre ASP; n=45	Post ASP; 76
Age, in years	53.7 ± 18.6	54.2 ± 19.1
Length of stay	20.4 ± 13.8	21.5 ± 18.2
Gender		
Male	31(68.9)	59(77.6)
Female	14(31.1)	17(22.4)



Conclusion

This study provides an opportunity to emphasize on the fact that the increasing colistin resistance in gram-negative organisms is a global threat and should be dealt with utmost importance. The basis of colistin resistance mechanism is the key to the solution and apart from the current ASP strategies, other methods or an updated ASP Programme must be devised to encounter this problem.

Descriptive Epidemiology of Measles Coverage in Zabul Province- 2018,2019 and 2020

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Background/Objectives

Globally Measles is a life threatening vaccine preventable disease. Afghanistan, despite of being in elimination phase, is gravely affected by morbidity and mortality due to measles. Outbreaks are reported from different provinces including Zabul. By this study we aimed to illustrate the epidemiological characteristics of children less than 2 years with respect of measles vaccination in Zabul province.

Method

A retrospective descriptive study was designed on available measles coverage data in Zabul province, for 2018, 2019 and 2020. It is consisting of children aged from 9 – 24 months. We analysed the various aspects of the data in term of time, place, person and compared the 3 years' data by age and Expanded Programme on Immunization (EPI) strategies.

Result

Immunization target for the first 6 months of 2018, 2019 and 2020 was 36726 for children under one year and 71568 for <2 years. Out of these 22933 (62%) <1yr children and 25036 (35%) <2 years. children were vaccinated cumulatively.10874 (47%) of them were female <1 year. Measles 1 coverage in <1 year was 22933 (62%), and <2 year 25036 (35%) in 2018, 2019 and 2020 respectively. Fix area coverage is 8791 (38%), Mobile 3729 (16%) and outreach 10413 (45%) in 2018, 2019 and 2020. Nine districts have measles 1 coverage, less than 60% and two districts coverage 80%. Left out children is 2644 (32%) of the total children. Dropout between Measles 1 and Measles 2 doses is (28%), (22%) and (43%) in 2018, 2019 and 2020 at provincial level.

Conclusion

The Programme has not achieved the targets and outreach performance was weak. Mostly, the children did not receive the second dose of Measles. With this coverage, outbreaks are unavoidable. Further investigation is needed for field data cross check and special interventions are required to boost up the measles coverage.

Web of Technology Carriers and Healthcare Entrepreneurship Seeking for Quality Health Upraise During COVID-19

Yasmin Ladak¹, Shafuq Arbani²

Objective

Use of information technology in the field of health care has raised across decades. The scope is expected to enhance further. The impact of COVID-19 pandemic imposed another great challenge on the healthcare workers and moved parallel with the innovations for better patient care. A need to review the existing policies for the growing scope of this field is highlighted that reflects the need of health and workforce within the country.

Methodology

An extensive literature review was conducted to explore the impact of information technology in the field of health care. It was also based on smart innovations and moves that can be introduced to overcome the burden of recent pandemic.

Result

Decentralization of the healthcare facilities within the country is a need to improvise access to quality health specifically in the peripheral regions. Large networks within the communities can be reached out that would also increase opportunities of employment. The already existing E-health implementation and use of smart devices can further strengthen this approach. To support the socio-economic status of developing countries like Pakistan, the contribution of healthcare entrepreneurs can make a difference.

Conclusion

Promoting the scope of information technology can always lead to evident change in convention of healthcare. A collaborative approach in terms of delivery of quality care and sufficient investments would result in improvised patient experience. The emerging trend of entrepreneurship in the field of health needs recognition to work for a healthy future of the country.

Impact of COVID-19 Lockdown on Bed Occupancy Rate in Neurosurgical Ward of Aliabad Hospital

Faisal Pirzad¹, Ahmad Fawad Pirzad², Raihana Ghaffari³

Introduction

Covid-19 is an exceedingly infectious life threatening condition, the corona virus disease 2019 pandemic has presented a massive burden to most health care systems across the globe. The focus of health care activity has shifted to the pandemic with negative impact on the management of other conditions and disease management. In Afghanistan like worldwide non-COVID cases were also decreased in number.

Objective

Impact of COVID-19 lockdown on bed occupancy rate in neurosurgical ward of Aliabad Hospital (non COVID cases) and compare to normal situation.

Methodology

This is a comparative observational study of patients admitted to neurosurgical ward of Aliabad hospital in the first 6 months of 1399 and compared to first 6 months of 1398.

Result

The admitted patients of which 676 were male and 129 females in 1398, 805 patients were admitted in the 1st 6 months of 1399. In 1398 44.2% of male patients were from Kabul and 53.5% of females were from Kabul province. In 1399 34.5% of male patients who were admitted to neurosurgical ward of Aliabad were from Kabul province and 56% of females were from Kabul province. In 1399, 60% decrease was seen in bed occupancy rate in male patients and 61% decrease was seen in female patients.

Conclusion

More than 50% decrease was seen in admission rate due to lockdown, scarce of transport facilities and fear of infection

Assessment of Hospitalized Neurosurgical Patients for COVID-19 - Aliabad Hospital

Raihana Ghaffari¹, Ahmad Fawad Pirzad², Faisal Pirzad³

Introduction

Both MoPH and WFNS recommend testing of all patients for COVID-19 prior to admission. COVID-19 is an infectious disease caused by (severe acute respiratory syndrome) coronavirus 2, is highly contagious life threatening condition with unprecedented impacts for worldwide societies and health care systems.

Objective

Prevention of COVID-19 spread among health care workers and patients

Methodology

This was an observational case series study of patients who were admitted to neurosurgical ward of Aliabad hospital in lockdown.

Result

Of 316 cases admitted during lockdown only patients admitted for elective procedures were tested for COVID-19 which constitutes 61 of 316 patients, of which only 20 patients were screened either by PCR, rapid test or ruling patients out by absence of typical COVID 10 sign and symptoms only 19.3% patients were admitted for selective neurosurgical procedures, 32.8% of these patients were screened for COVID-19. 3 of the patients had PCR test done and all were negative, 8 rapid tests were done, 5 were negative, 2 of them had positive immunoglobulins G against COVID-19 and 1 patient had both immunoglobulins s G and M against COVID-19 . 11 patients were ruled out due to absence of COVID-19 signs and symptoms by Afghan japan hospital.

Conclusion

Due to lack of testing equipment's in Aliabad hospital only patients admitted for elective procedures were tested, and also due to economic problems of our patients, most of them were sent to Afghan Japan Hospital for testing and they did not perform rapid or PCR tests for all patients and ruled out by absence of COVID -19 signs and symptoms which is against recommended guidelines.

Analyses of Strategy Base Penta 3/OPV3 Coverage and Calculation of Drop Out Between Pent 1 and Pent 3 Health Facility Level from Kunar Province 2018-2019

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¹EPI/PEI Focal point for East

²East REMT Manager

³National Technical Advisor for AFETP

Background/Objectives

Afghanistan as a low income and conflict affected country has high level of child and infant mortality due to low level of immunization. In this study we aim to find the difference between Penta1 and Penta3 and identify the reason for such a difference.

Methodology

It was descriptive a cross sectional study to compare the two years (2018-19) Penta 1-3 data and dropout rate, the reference of this data was EPIMIS data source of Kunar province. We coordinated with PEMT colleagues about the study hence the access to database was possible. In this study all district level health facilities were enrolled which have the EPI units at provincial level and finally the analysis was done by using MS excel and Epi Info v.7.

Result

After analysis it was observed that in Asadabad district all each district HF target achievement was low. The distribution of P1 antigen boys were more vaccinated compare to girls in both mentioned years. Also, for the P3 categories, the boys were more vaccinated than girls. The dropout rate for both years, found that in some of the districts have negative dropout rate like; Marawara and Ghaziabad in 2018. In 2018 Noorgal, Watapoor and Asadabad dropout rate was high but for the 2019 Noorgal and Asadabad was good but the Watapoor still not acceptable. Some district's coverage was 100% like Chapadara, Dara-e-Peach, Noorgal and sarkani.

Conclusion

We observed irregularity of the monthly target for each district's health facilities or EPI units. In 2019 monthly target low maybe due the reason that the micro plan was not revised or PEMT staff were not increased in accordance with the growing population. Caregiver just care about boys or vaccinators rather than girls. Dropout is worse in some district which requires serious attention.

Hypokalemic Periodic Paralysis: A Rare Case Report

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Resident, Paediatric Medicine, FMIC

Introduction

A rare heterogeneous group of disorders characterized by sudden onset of reversible muscle paralysis. A 16-year-old male patient was introduced to FMIC with an acute history of paralysis. The patient was absolutely fine last day. However, after an intense exercise episode had acute weakness in lower limbs with no other associated symptoms. After a series of primary laboratory investigations, he was diagnosed with hypokalemic periodic paralysis, precipitated by intense exercise. Hypokalemic Periodic paralysis (PP) is the most common cause of PP with an estimated prevalence of 1 in 100,000. It can be familial with autosomal dominant inheritance or may be acquired in patients with thyrotoxicosis. This disorder is three to four times more commonly clinically expressed in men. Approximately one-third of cases represent new mutations with 70% patients having mutation in the gene that codes for alpha-1 subunit of dihydropyridine-sensitive calcium channel in skeletal muscle.

Case report

A 16-year-old male patient was brought to emergency room with an acute history of paralysis. The weakness was bilateral and involved both proximal and distal muscles of lower limbs. He had no respiratory or swallowing problem and was able to move his face and neck without any difficulty. He denied any recent diarrhoea, chest pain, palpitation, shortness of breath or weight change and had no serious past medical or surgical history and wasn't on any long term medication either. There was no history of any such previous episodes in patient or any other family history. He was a student.

Upon physical examination, he was well looking and vitally stable. Cardiac, respiratory and abdominal examination was normal. On neurological exam he was oriented and weakness of lower limbs was present with sensation being intact but deep tendon reflexes were diminished to 1-2 out of 4 overall. Cranial nerve function was intact and no fasciculation or obvious muscle atrophy was detectable. Routine labs showed a normal CBC, serum electrolytes at the time were Na 145, K 2.2, MG 2.1, Ca 7.6, Cl 113, BIC 18.5. The patient was diagnosed with hypokalemic PP, precipitated by exercise. The patient was started on KCL. He responded quickly and paralysis disappeared quickly. The recheck K level was 2.8. patient was educated about condition, advised to avoid precipitants and with last K being 4.2 mEq was discharged.

Discussion

Weakness is a common, albeit non-specific, presentation in hospital setting. Periodic Paralysis is often overlooked in the initial work-up. HPP occurs in several settings and the diagnosis may require an extensive search for the underlying etiology since the treatment varies according to the cause. HPP may occur sporadically in the form of Familial Hypokalemic Paralysis (FHP), a poorly understood disorder which may occur spontaneously or as the result of autosomal dominant inheritance.

Abbreviations: HPP, muscle weakness, potassium level

Routine Measles1 coverage in Afghanistan, 2018 –2019

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²Expanded Programme of Immunization, MoPH

³AFETP, Afghanistan National Public Health Institute, MoPH

Background/Objectives

Measles is a highly contagious disease causing high morbidity and mortality among children. The global vaccination coverage was estimated 85% in 2019. Neighbouring countries of Afghanistan have more than 96% coverage except Pakistan. In Afghanistan, the coverage level of measles1 in 2018 is higher than 2019. This study aimed to analyse/determine the measles vaccination coverage in children aged 9 months to 10 years in Afghanistan during 2018-2019.

Methodology

A descriptive epidemiology study was designed to identify the coverage of measles vaccination in Afghanistan during 2018 and 2019 and then compare them to see the similarities and differences. In this study all measles1 coverage among children under 1 year registered into existed EPIMIS database at national EPI (2018 & 2019) were accessed, cleaned, analysed. Data management and analysis was done using Microsoft Excel 2016 and Epi Info v.7.

Result

In Afghanistan, the Measles 1 coverage in 2018 and 2019 was 79.1% and 72.1% respectively. In 2018 and 2019 Khost province with 52 % and 45% coverage marked as lowest coverage level in the country. Nimroz province with 92 % in 2018 and 100% in 2019 located at top level of measles 1 coverage in Afghanistan. The measles1 coverage in males were more than 51% in both years while it was lower in females (<49%). By strategy, in 2018 and 2019 the measles1 coverage in fix was 61.6 % and 66.6 %, while it was 9.0 % and 6.9 % by outreach. Furthermore, this coverage by mobile in these years were 29.4 % and 73.5% respectively. Geographically we found also some differences in coverage.

Conclusion

Apparently, the level of coverage is different geographically and by comparison of two years. Further investigation is required to know the measles 2 and dropout between them. As a whole the Programme should focus on strengthening the Programme and ensuring consistency in coverages.

Use of Laughing Gas to Ease Labour Pain

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Background

Labour is an emotional experience and involves both physiological and psychological including pain experience. Painful and stalled labour may end up into C-Section. Non-pharmacological therapies (Birthing Ball, patterned breathing, beverages, movement and position Changes, superficial Heat and Cold) cannot always be effective. On the other hand, research supports use of Nitrous Oxide gas during labour which is effective in reducing pain and increases effacement. Nitrous Oxide also called Laughing Gas is a blend of 50% nitrous and 50% oxygen. It is harmless and has a favourable effect on both women's psycho-emotional experience of labour and breastfeeding success.

Purpose

The purpose of this project was to improve labour experience and decrease C-section rates.

Methodology

This is the result of a quality improvement project conducted during 2020. Problem identification, analysis, and designing the interventions including resource availability and policy development were the main areas of this project.

Result

At FMIC Labour and Delivery Operating Room (LDR-OR) it was found that C-sections were performed due to intolerance of labour pain and failure to progress due to low effacement which could have been avoided by use of analgesia. The data was confirmed via Labour room management system (LRMS) which showed that there were 25 C-Sections performed in the favour of patient request (PR) due to pain intolerance and Failure to Progress (FTP) during 2017.

FMIC introduced the use of nitrous oxide gas during labour using PORTER NITONOX machine from 2018. FMIC may have been the first and only site, providing patient- controlled nitrous oxide gas which has resulted in a decrease in the rate of C/S due to variable PR and FTP. The administration of nitrous oxide at FMIC is guided through an established guideline and staff are adequately trained to carry out the procedure.

Conclusion/Recommendation

It is recommended to use this medication in labour for mothers to make their labour experience less painful and decrease unnecessary C-section which is riskier than normal Spontaneous Vaginal Delivery- SVD. We also recommend that the same mechanism may be replicated in all maternity hospitals in the country to improve labour experience.

Prevalence of Odontogenic Cyst in OPD Patients of Kabul Curative and Specialization Dentistry Hospital During 1398

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Introduction

Cysts are defined as pathological cavities consisting fluid, semifluid or gaseous contents which is not created by accumulation of pus. All cysts lined by epithelium only the solitary and aneurysmal bone cysts lack an epithelial lining or fluid contents, there is no available researches regards odontogenic cysts in Afghanistan. This study aimed to determine the prevalence of and factors associated with odontogenic cyst among patients 3-40 years' old who are admitted to the OPD ward at Kabul curative and specialization Dentistry Hospital.

Method

Descriptive Questionnaire study design was conducted from patients log book during start to end of 1398. In this research patient age ranges between 3-40 years and cases variables are the patients: (sex, marital status, education, patient's occupation and ethnicity). At the end each patient was asked to sign in consent form to show their willingness of participation in this study and the data was analysed using SPSS.

Result

The study finding shows among total of 27 study cases of odontogenic cysts; 20 cases (74,07%) were due to Dental infection and 7 cases (25,9%) were due to trauma. According to patient ages 17 patients (62,96%) were male and 10 patients (37,03%) were female. Among the study sample 6 cases (22,22%) were between ages 21-30 years and 21 cases (77,77%) were between 31-40 years. Based on current info graph Kabul city experienced the highest peak by 13 cases. while Paktia, Mazar Sharif, Kundoze, Parwan, Maidan Wardak, Kapisa hit the lowest figure by 1 cases. On other hand, Logar reveals 4 cases and Badakhshan and Ghazni display 2 cases respectively.

Conclusion

The study found 27 cases were Odontogenic cysts in OPD Department of maxillofacial surgery during 1398 in curative and specialization Dentistry Hospital, Kabul, Afghanistan.

BCG coverage in Afghanistan 2018 – 2019

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Background/Objectives

Tuberculosis (TB) is an infectious preventable disease mostly affecting the lungs. Majority of cases are curable when medicines are taken properly. Afghanistan is among the 22 countries with high burden of TB. Around 10000 Afghans die annually due to this disease. The aim of this study was to compare trend of BCG coverage during 2018-2019 and determine its coverage based on gender and geography.

Methodology

In this cross-sectional study based on retrospective existing records, the indicators of BCG surveillance during 2018-2019 were analysed and reported in Afghanistan. The source of data is EPIMIS database at national EPI. The EPIMIS was developed in 2015 and is a part of HMIS which collects, compiles, analyses and interprets the vaccine reports all over the country. Data management and analysis was done using Ms. Excel 2016 and Epi Info v.7.

Results

Annual target for BCG immunization in Afghanistan in 2018 was 1761920 children while the vaccinated numbers were 1719785, indicating a difference of 42135 missed children. Similarly, annual target of BCG in 2019 was 1808035 with vaccinated number of 1710559; showing a difference of 97476 missed children. BCG coverage in 2018-2019 was 98% and 86% respectively. In 2018-2019 Nooristan province with 66 % and 61% coverage marked the lowest and Panjshir with 146 % in 2018 and Kunduz 120% in 2019 located at top level of BCG coverage in Afghanistan. The BCG coverage in males were more than 51% in both years while it was lower in females (49%). In 2018 and 2019 the BCG coverage in fixed centres was 51%. Mobile canters coverage was 7% and 9 %, while by outreach coverage was 19% and 16%.

Conclusion

Apparently, the level of coverage is different geographically in consecutive two years. Further investigation is required to know the BCG dropout between them. As a whole the Programme should focus on strengthening the mobile and outreach strategies.

Coronary Artery Bypass Surgery in A Patient with Anomalous Circumflex Artery: A Case Report

Arifa Alizad
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Introduction

The anomalous origin of the circumflex artery (Cx) is uncommon and presents course variations that might make the coronary artery bypass surgery (CABG) difficult.

Anomalous LCx is divided into 3 types:

type I: separate ostia for right coronary artery (RCA) and LCx

type II: common ostia in the right sinus.

type III: LCx arising as a branch of the proximal RCA.

The coronary anatomic variation of the left circumflex artery (LCx) is considered as the most common anatomic variation with a separate ostium from the right sinus, and very unusual variation as a proximal branch of right coronary artery (RCA).

Significance

The determination of coronary anomalies is important in the treatment approach in surgical procedure during bypass and valves surgery.

Case Description

We report the surgical treatment of one anatomical variants of anomalous of the circumflex artery (Cx) as a proximal branch of the right coronary artery (RCA).

The case is 42-year-old man admitted to our hospital due to of chest pain.

The patient underwent coronary angiography that revealed severe obstructive disease in the left anterior descending artery (LAD); the LCX was not visualized on the left system injection. The RCA was dominant with normal take-off; however, the CX was seen coming off the proximal part of RCA, and was noted to be stenosed. It was possible, in the case, to perform the revascularization using saphenous vein graft (SVG) and internal thoracic artery graft.

Discussion

Anomalous coronary arteries may pose a challenge to diagnosis if the vessel is severely diseased or if the possibility of anomalous coronary artery is not considered.

Failure to recognize and properly demonstrate the anomaly can be hazardous to patient management.

Conclusion

The CABG is feasible in cases of anomalous origin of the CX.

Cardiac surgeons should be aware of the origin and course of the coronary arteries, variations may constitute an additional technical difficulty for the surgeon.

Relationship Between Viral Load of Hepatitis B Virus (HBV-DNA) and Elevation of Alanine Amino Transferase (ALT) Enzyme in Patients Surfing Hepatitis B

Husna Ghaffari (Affiliation?)

Study background

Nowadays, hepatitis is a major challenge for clinical research such as hepatitis B virus (HBV) infection which is the common cause of liver damage. Viral load count is the amount of particular viral DNA or RNA in a blood samples. Our study aimed that High viral load evaluate the relevance of hepatitis B (HBV-DNA) viral load and the elevation of alanine amino transferase (ALT) enzyme.

Method

This is a descriptive-cross sectional study to find out a relationship between HBV viral load and increasing the level of enzyme ALT during the first six months of 2019 in French Medical Institute for Mothers and Children. The viral load assay was performed on stock human plasma samples of HBV using Bio Red (CSX96) Real star analyser according to manufacturer's instructions. All data were collected from the Polymerase Chain Reaction (PCR) and Biochemistry section of the hospital.

Result

overall 309 patients were included. The prevalence of positive case was 154(49.8%) and the negative case was 155(50.2%). Those who reported positive events 201(65.0%) were male and 108(35.0%) were female. Negative incidence in females was 64(41.30%) and male was 91(58.7%).

Conclusion

This research which was done shows a significant relation between HBV-DNA viral load and elevation of ALT enzyme (p value >0.00) that as much as the virus going up the level of ALT enzyme will also increase.