

## 2nd International Conference of Quality Management in Health Care

1st-3rd February 2010

Sultan Qaboos University, Muscat, Sultanate of Oman

### Oral Presentation

#### Toward Safer Care-Patient Safety Must Be number one Priority

Mohammed Abuhumaid, King Hussein Cancer Center, Amman, Jordan.

Email: mabuhumaid@khcc.jo

Patient safety culture has become one of the most important issues in both the medical and nursing professions, and many researches have been conducted worldwide to explore, support, and enhance it. Many literatures have concluded that error reporting and the safety culture have not been emphasized enough. In developing countries including Jordan, there have not been much research studies done, even though there are alarming figures and statistics that drastically need to be taken into consideration. Working at an oncology center and an institution of higher education highlighted that cancer patients need more patient safety precautions since they are at a higher risk of being filed does not truly reflect the actual number of incidents that have occurred and that can be related to the perceptions of health team professionals on the reporting of such errors. Thus knowing that most of these errors are harmful as well as preventable, the focus on patient safety culture has greatly increased to ensure a safer patient culture and environment as well as increasing health care providers, awareness on patient safety culture. Based on this, the conclusion is that there is great need for situational analysis to assess the perception and attitudes of health care providers, hoping that it would help contribute positively to patient safety culture. And the overall suggestion is that patient safety could be improved in a non punitive culture, where individuals can openly discuss medical errors and potential hazards. As a result, the emphasis on improving safety to prevent patient harm has become a priority for health care professionals, both nationally and internationally.

#### Patient safety: is it important for post-graduate training in health care?

Rashid Al-Abri, Directorate of Development and Quality, Sultan Qaboos University, Hospital, Muscat, Oman.

Email: ralabri@gmail.com

Understanding of patient safety concepts and how they are integrated into the daily work of health care is critical in providing safe patient care. It is widely acknowledged that health care workers are committed to their patients and are continually striving to improve their practice and provide high-quality care to all their patients. However, to support and maintain ongoing

improvements, education and training activities in patient safety need to be easily accessible for all health care workers.

The development and integration of a structure of inter-professional patient safety competencies is a critical achievement that will accelerate the development of local patient safety curricula for the post-graduate residency program. The integration of safety theories and the how to apply system improvement at all levels of education and continuing professional development is needed across the spectrum of care and this will reduce medical errors.

The goal of post-graduate training organization/Board is to build a safety competencies strategy for any health care profession in collaboration with other local and international educational organizations. The Safety Competencies: Enhancing Patient safety across the health professions, and adopt the patient safety in education and continuing professional development activities. It would significantly help promote a culture of patient safety and raise the bar for health care education in the sultanate of Oman. Finally innovation in health professional education requires careful consideration, an honest attitude to the reporting of adverse events and close calls is an important element of a patient safety culture which provides an opportunity to identify and analyze system failures and to develop solutions.

#### Coping With Changes: Let's Not Forget Impediment of Occupational Stress

Samir Al-Adawi, Department of Behavioral Medicine, Associate Professor, Department of Behavioral Medicine, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman.

Email: adawi@squ.edu.om

**Background:** Data emerging from Western populations suggest that occupational stress is increasingly being recognized to have enormous social, economic, as well as known organizational consequences; such as poor performance, job dissatisfaction, direct cost incurred from absenteeism, untimely retirement and other stress-induced illnesses.

**Aim:** The aim of the presentation is to examine the role of stress and its impact in mitigating quality management in health care settings. Most of the distress stems from inability to cope with rapid changes that are central to such organizational settings. The role of patterning in Oman that reinforces peculiar occupational stress is also highlighted.

**Conclusion:** It is concluded that mottos such as 'attaining

excellence', 'moving quality forward', 'delivering innovative patient-centered' and 'quality through innovation' are likely to remain rhetoric unless the role of stress is addressed and therefore much cherished pursuit of excellence could be realized.

### **Video-Conferencing: Quality Major Solution for Tele-Medicine, Tele-Consultation and Medical Tele-Education for Healthcare Organizations in Oman.**

*Jamal Al-Busaidi, Directorate of Development and Quality, Sultan Qaboos University Hospital, Muscat, Oman.*

*Email: jamal9999@gmail.com*

**Objective:** To design a national framework using new innovation such as video-conferencing; tele-consultation; and medical tele-education exclusively for healthcare organizations such as SQUH; MOH; and OMSB.

**Background:** Video conferencing as a notion is a communication technology that combines the power of audio and video technologies, allowing people/site (multi-point) at different locations to come face-to-face and interact easily, mainly for clinical/health purposes.

**Advantages:** Through experience of using this new quality innovation, many benefits are anticipated, mainly for SQUH such as; providing such framework will eliminate the space setback in the outpatient area by increasing patient access to specialists and improve the level of care; improve delivery of treatment by creating central monitoring stations and tele-consultation. Currently, there are many meetings held on a daily basis between public health care organizations. Therefore, implementing such a new technique would reduce meeting overload for many activities. The MOH is burdened by patients travelling from long-distance locations such as Dhofar, Sur, Musandam, and Buraimi. Hence, this quality approach would reduce the need to transfer patients and thus retain revenues. Public & private hospitals would build patients' trust. As a result, there would be reduction in patients' travelling locally and overseas in search of second opinions or seeking better quality of health care. Videoconferencing would help address the nursing shortages and could be used as a tele-education solution in many hospitals.

**Conclusion:** Videoconferencing is a reliable, easy to use, secured, and an innovative approach for telemedicine and tele-consultation solutions and is a must for the Sultanate of Oman. It would be widely accepted and would play a significant roles for SQUH as well as MOH in terms of prolonging the quality of health services and maintaining healthcare excellence. This can be accomplished

by embedding a video-conferencing over IP (Internet Protocol) solutions in conjunction with DICOM and PACS systems without the need of re-engineering the infrastructure.

### **SQUH Framework for Quality Improvement**

*Yasmeen S. Al Hatmi, Directorate of Development and Quality, Sultan Qaboos University Hospital, Muscat, Oman.*

*Email: yaz4me2@yahoo.ca*

**Introduction:** Despite the vast literature reports on healthcare organizations' experience with quality improvement plans and strategies available to readily adopt and apply, the immediate question which presents itself is "what would work for SQUH?" The most important single condition for success in the quality of healthcare is the determination to make it work. If there is true commitment to quality, the focus will be on building an infrastructure for quality, focusing on three main components, namely; philosophy, structure and activities. An effective quality improvement plan illustrates proper management and accountability of supporting systems such as audits, peer-reviews and internal commitment in order to ensure continuous quality improvement (CQI).

**Objective and Methodology:** The highlights of this presentation show how an organization's quality strategy design supports the work of each individual into their proper relative position and translates it into the goals of the entire organization's strategy, in terms of mission, vision, objectives and management. This is done through good leadership, proper training, incentives and effective management for change. Furthermore, it emphasizes team structure and responsibility, benefits of performing assessments, and effective communication and education for successful quality cultural transformation and improvement.

Steps towards designing a quality improvement plan shall be illustrated by sharing the initiative preparation taken by Sultan Qaboos University Hospital (SQUH) for a hospitalwide quality improvement plan. The improvement strategy used is linked directly to the strategic goals of SQUH strategic plan and is comprehensive with the institutions continuous effort to monitor and improve patient safety and the performance of all healthcare services provided. It is with intention to provide participants with a realistic framework for developing a quality improvement plan in a hospital setting.

### **Technical indexing as a Quality Indicator of Excellence in Gynecology at Sultan Qaboos University Hospital**

*Maha Al- Khaduri<sup>1</sup>, Yahya Al- Farsi<sup>2</sup>, <sup>1</sup>Department of Obstetrics and Gynecology, Sultan Qaboos University Hospital, <sup>2</sup>Department of Family Medicine and Public Health, Sultan Qaboos University*

Hospital, Muscat, Oman.

Email: [m.khaduri@gmail.com](mailto:m.khaduri@gmail.com)

**Background:** Hysterectomy can be performed by the traditional trans-abdominal (TAH) approach, or by the more advanced minimally-invasive approaches: Vaginal (VH) and laparoscopic (LAH). Technical Indexing (TI) is a relatively new quality metric that is defined as the number of minimally-invasive hysterectomies (VH and LAH) over the total number of hysterectomies performed in a single hospital on an annual basis. The TI provides a comparative benchmark which may help implement strategies to improve performance.

**Objective:** To calculate TI as a quality indicator of excellence in the gynaecology department at Sultan Qaboos University Hospital (SQUH).

**Design:** Retrospective charts review

**Materials and Methods:** Profiles of all patients who had hysterectomies at SQUH throughout the period from 2003 to 2009 were reviewed. The cumulative frequencies for all types of hysterectomies were tallied and the TI was calculated for each year.

**Results:** Overall, results showed a total of 221 hysterectomies were performed, of which, there were 6 (2.7%) LAH, 32 (14.5%) VH, and 173 (78.3%) TAH. The average TI was 17% (38/221), and it ranged from 10% to 24%. The trend of change over the years was fluctuant. It started with 16% (year 2003) and increased gradually during 2004-2006 but then declined gradually during 2007-2008 (trend p-value 0.02). This low and fluctuating trend was mainly attributed to the inconsistency in the availability of trained surgeons and laparoscopic equipments.

**Conclusion:** Technicality at SQUH is low, but it can be improved by increasing the number of minimally invasive hysterectomies by providing more trained surgeons and laparoscopic equipments.

### **Patient safety in health care services: a dimension that attracts enormous national attention**

*Abmed Al-Mandhari, Family Medicine & Public Health Department and clinical Affairs Directorate, Sultan Qaboos University Hospital, Muscat, Sultanate of Oman.*

Email: [manar96@yahoo.com](mailto:manar96@yahoo.com)

#### **Abstract:**

Globally, patient safety has gained momentum for the last few years. Several factors have been the driving force for such momentum. These include factors such as; heightened expectation

of the community in getting safe and good quality care, increasing cost of health care services, increased complexity of health care services and changing trends of disease from acute conditions that require few visits to the health care facilities to chronic conditions such as diabetes mellitus that require frequent visits for care that is delivered by various staff and carry risks of failure while delivering the care. Such driving forces made many health care systems take active steps to ensure safe delivery of health care services. The Ministry of Health (MoH) in Oman is no exception for such movement. For many years, it has been working very hard at different levels to improve the quality of health care services and patient safety. This was reflected in the many regional and international recognitions such as the World Health organization (WHO) which in the year 2000 ranked the country's health care system as 8<sup>th</sup> with regard to providing the best comprehensive health care at a global level. The country also won first position at the global level in health system efficiency and good utilization of financial resources in health services.

This project is funded by WHO. For MoH institutions, one of the steps that reflect the MoH's interest is improving the quality of healthcare services in general, and safety in particular.

This report presents the framework that was followed in the assessment process, results of the study that was carried out in 21 MoH institutions from primary, secondary and tertiary levels and the strengths and weaknesses of the health care system with regard to the safety of services provided. In addition, it presents recommendations for improving the safety of services provided.

### **Satisfaction and Perceived Performance Quality of an Electronic Medical Record System in a Tertiary Hospital in Oman**

*Abdullah Al Mujaini, Anuradha Ganesh, Yahya Al Farsi, Department of Ophthalmology, Sultan Qaboos University Hospital, Muscat, Sultanate of Oman.*

Email: [mujainisqu@hotmail.com](mailto:mujainisqu@hotmail.com)

**Background:** Electronic Medical Record (EMR) systems are employed to improve quality of care by supporting medical decision making, promoting use of standard guidelines, and increasing coordination between different health care providers. There is a wide variation in satisfaction and improvement of care among care providers after the incorporation of EMR systems.

**Objective:** To evaluate the knowledge, attitude and practice of physicians at Sultan Qaboos University Hospital (SQUH) in Oman towards the new EMR system, that was implemented in the year 2006.

**Design:** Cross-sectional survey.

**Methods:** A questionnaire to assess the knowledge, attitude, and practice of physicians towards the EMR system was developed. The validity and reliability aspects were assessed by conducting a pilot study on a focused group. The final version was considered to have adequate validity and reliability by independent assessors. The questionnaire was distributed among physicians of various specialties at SQUH and the information was analyzed using SPSS software.

**Results:** Out of 200 distributed questionnaires, 141 (70.5%) questionnaires were received from multiple departments. Overall, only 22 physicians (15.6%) rated the current EMR system as an effective tool. The majority rated it as either fair (78; 55.3%) or poor (41; 29.1%). A substantial proportion (26.3%) of respondents considered EMR not worth the time and effort required to use it, and 31.2% reported poor satisfaction with EMR. The majority (67.4%) reported no improvement or even increasing difficulty with the performance of work after applying the EMR. The overall quality of work has neither changed (41.2%) nor declined (27.4%). The low satisfaction and underperformance was found to be associated with the younger age group ( $p= 0.032$ ), junior designation ( $p= 0.041$ ), and those with low familiarity with computers ( $p= 0.047$ ).

**Conclusion:** Results showed low satisfaction and low perceived quality of work among physicians at SQUH with the current EMR system. Further studies have been undertaken in order to explore the practical obstacles.

### **A Review of the Adverse Event Reporting System at a Hospital in Oman**

*Waleed Al Nadabi, Department of Quality, Khoula Hospital, Ministry of Health, Muscat, Sultanate of Oman.*

*Email: alnadabi2030@yahoo.com*

**Objectives:** This study examines nurses' and doctors' views about the reporting of AEs and errors at Khoula Hospital in the Sultanate of Oman. The objectives of the study were (1) to examine the nurses' and doctors' views on the basic requirements of AE reporting system (2) to explore the causes that may prevent nurses and doctors from reporting AEs (3) to examine their views on the way in which the AEs are handled (4) to make recommendations of improvements to the current reporting system.

**Methods:** A cross sectional study was performed using a quantitative research method. The Study used an existing questionnaire developed by Anderson et al (2002). The questionnaire was distributed to 100 doctors and 180 nurses.

**Main Findings:** Respondents preferred the reporting of AEs to be confidential (63%), voluntary with guidelines (39%), and the recipients of the reports to be an appointed person in their department who belong in their own profession. The main reasons for not reporting AEs are: (a) fear of appearing as incompetent (50%), (b) fear that reporting AEs may affect their future careers (48%) and (c) fear that patients may file a complaint (47%). Generally, there is a negative view to the way in which AEs are handled although there are few results showing a positive view.

**Conclusion/Recommendations:** Based on the results of this study, it is recommended that: (1) reporting AEs should be voluntary and reports should be kept confidential (2) clear definitions and guidelines should be developed and implemented (3) doctors and nurse need to be trained to change their views of AEs (4) a no-blame culture should be built in the organization.

### **Self Evaluation and the Attainment of Excellence in the Delivery of Quality Care**

*Rabie'e bin Kaid Al-Rashdy, Armed Forces Medical Services, Muscat, Sultanate of Oman.*

*Email: abukamal@omantel.net.om*

In a world that is full of work complexities, unpredicted changes and constantly raising challenges the need for excellent performance particularly in healthcare settings has become a priority. Indeed, most healthcare organizations worldwide now exert extraordinary efforts to meet the public (and political) demand to provide excellent quality care. Excellence here is a characteristic or an attribute for being exemplary in achieving the desired and expected outcomes.

Achieving these endeavors within healthcare settings, requires self evaluation at a personnel level from of all healthcare practitioners as well as their work settings in order understand where they are now, what is expected of them and what do we do next. To be more exact, self evaluation is a process aimed at collecting and analyzing past, present, and future information about ourselves and our institution in order to achieve effective performance and success. It is a way of gaining awareness of our past encounters, the status of our presence, and formation requirements of our future.

There are various ways by which we can perform self evaluation (both at personal or institutional level) such as reflective practice, benchmarking and auditing. These methods, as well as other relevant concepts and strategies in relation to attaining excellence will be covered in this presentation, as per the following headings; to define excellence as a concept; to outline the link between excellence and quality performance; to examine the



fundamentals of excellence; to present self evaluation as a mean to attaining excellent quality care; to discuss various approaches to self evaluation; to underline the prerequisites for successful self evaluation.

### **Evaluating the Current National Quality Management System in PHC in Muscat**

*Qamra S. Al Sariri, Director of Planning- DGHS-Muscat, Ministry of Health, Sultanate of Oman.*

*Email: qa\_alsariri@yahoo.com*

**Background:** Quality Assurance (QA) in primary healthcare (PHC) is not a new concept. It is the direct outcome of PHC principles of equity, accessibility, integration, sustainability and partnership between the community and other partners. Therefore, QA must be an essential part of PHC in all countries and should not be considered as a sophisticated and costly responsibility (WHO, 2000). The issue of health care quality assurance/improvement is placed high on the agenda of Oman MoH; it is the second strategic vision in the 7<sup>th</sup> Five year plan (2006-2010). The aim of introducing the QA program in PHC is to ensure the continuity of services. The QA program aims to increase the efficiency and effectiveness of the health care in the MoH and provide a mutual trust between health care facilities and the community (MoH, 2005).

**Objective:** To evaluate the implementation of current quality management system in PHC in Muscat since 2003.

**Methods:** A quantitative, cross sectional study was conducted between October and December 2008 using a self administered questionnaire targeted towards staff working in the area of quality management. The tool used as the measuring instrument for the evaluation of the quality system consists of 5 major areas within the quality system. Quality assurance documentation, involvement of patients, process based on standards, human resource management and process improvement based on quality improvement procedures. The statistical package of social science (SPSS) was used to analyze the data at a 95% confidence interval.

**Results:** The overall response rate was 84 %, (N=42). The response to the issue of documentation varied between 48-90% depending on the type of documentation facilities available at the health centre. 76% had special provisions for training and education of professionals, staff and management and 60% had set up quality working groups. However, support by QA expertise was 26%, and only 10% had an allocated budget for quality management. Additionally, 69% agreed that there was a relationship between human resources management and the quality policy at the health

centre related to training new professionals in quality improvement methods and participation in quality improvement projects required, while 50% agreed that continuous education should be a priority of the quality policy.

The availability of standards to cooperate with other organizations also varied between 26-57%. The response to involve patients was 50%. Patients were involved depending on the subject such as discussing the results of customer satisfaction surveys, complaints and when evaluating quality improvements goals.

**Conclusion:** These findings indicate that qualified and expert staff are needed to support the infrastructure of the QA national program. The partnership with the community must be strengthened with the involvement of the PHC facilities. The current manual for QA standards in PHC must be revised as it only focuses on the structure of the current system. It should be upgraded to cover processes and outcomes such as the PHC services expansion. The research and training activities needs to be strengthened at the national level as it is a principal foundation of the QA program. National cadres need to be developed to manage the program and foster the culture of national improvement. This research opens future research to explore and evaluate these findings to improve the quality of PHC.

### **Risk and Crisis Management in Health-Care Facilities**

*Mehdi Azimi, Risk Management International, Oklahoma, USA.*

*Email: accinc2000@hotmail.com, docazimi@gmail.com*

Risk management is an important aspect of quality care. Every healthcare professional in the course of their duties is required to ensure a safe environment for care, through control and management of associated risks.

Risks which are facts of life are often used in conjunction with chance. It can have a positive or negative outcome. The purpose of this presentation is to identify and outline the risks in health-care industries that have potential negative consequences leading to liability and financial loss. The presentation further identifies elements of the risk management decision-making process, which provides a tool for identifying, evaluating and controlling accidental losses. This includes liability-causing factors associated with physical, chemical, biological or human error leading to financial losses. Crisis management on the other hand is a turning point in a sequence of events. It also requires extensive planning, preparation, and when an organization fails to implement, it can lead to liability and financial losses. The lecture reviews these two important issues which are often taken for granted.

## Measuring Quality in Oncology: Pros and Cons of Different Tools

*Ikram A Burney, Department of Medicine, Sultan Qaboos University Hospital, Muscat, Sultanate of Oman.*

*Email: ikramburney@hotmail.com*

Over the past few decades, scientific methods have been developed to study and measure the quality of care. The need to measure quality in Oncology practice is very important, due to the need to compare the treatments and outcomes with other hospitals. Traditionally, quality has been measured in several dimension, for example; structure, processes and outcomes. Each of the dimensions have strengths and weaknesses when it comes to measuring quality of care especially in Oncology. For example, measuring quality in terms of structure (facilities such as day care chemotherapy suites, radiation oncology facilities and equipment) may not be easy, if one looks to improve the quality in a short period of time. On the other hand, while many perceive the outcome to be the ultimate validator of the effectiveness of care, and hence the quality of the services, measuring and improving the outcome over time may not be worthwhile, because it takes a long time to measure survival, such as, in cases of breast cancer, colon cancer or lymphomas, and then improving based on the results of the outcomes. During the course of time, new developments may make it difficult to use the same modalities of management as those used in the past, and hence comparisons would not be valid. However, process measures can be used to evaluate under use, overuse or misuse of the facilities, and this would indirectly reflect on the outcomes.

The vast majority of efforts to measure quality have been aimed at studying the under use of facilities, resources, or the treatment. If one considers the group of patients to whom care should be provided as the denominator, and the actual care that should be provided as the numerator, a ratio could be obtained and this could be measured serially to study the improvement in the quality of care. To illustrate this with an example, a quality measure could be "number of breast cancer patients who received tamoxifen or an aromatase inhibitor, divided by the number of newly diagnosed breast cancer patients with estrogen receptor, and /or progesterone receptor positive disease minus the number of patients who refused to take the medicines". One could see that in analyzing the quality measure for adjuvant hormone therapy, one must also look at several data elements, such as, the diagnosis of invasive breast cancer, the timing of diagnosis, the tumor size, the nodal status, the receptor status, the onco-protein status, the receipt of the hormone therapy, the dose of the hormones, etc. In conclusion, an effective way of measuring quality of care in Oncology practice is to study the processes, especially measuring the quality in Oncology

practice, which is of paramount interest, not only in comparing the results with the outcomes, but also for regulatory requirements, such as; ISO certification or JCI accreditation.

## Excellence in Primary Health Care Centers; Jordan Experience ehealth care

*Safa el Qsoos, Quality Directorate, Ministry of Health, Amman, Jordan.*

*Email: elqsoos@yahoo.com*

This presentation shall elaborate on the following important points:

1. Establishing a quality improvement system in primary healthcare from good to excellence in Jordan;
2. Empowering health center teams in order to analyze and improve the system and process of service delivery;
3. Creating an enabling environment to change the culture of the Ministry of Health from traditional inspection to continuous quality improvement;
4. Recognizing and Rewarding achievements;
5. Building on the good to achieve the best (toward accreditation).

## Health Indicators as a Tool for Quality Monitoring

*Mohamed Kamal, Directorate of Health, North Batinah Region, Ministry of Health, Sultanate of Oman.*

*Email: kamal7112004@yahoo.com*

Monitoring is one of the important pillars in Quality management. It is considered to be the key of success in the quality of health services. Within the scope of quality control, monitoring can play a very important role in identifying services and areas that require improvement. Without quality monitoring it is impossible to determine whether the standards are met and whether there is an opportunity to improve or not. Different modalities can be implemented in this aspect such as quality indicators, health surveys, auditing, appraisals and evaluation tools, as well as quality of life assessment tools.

A cross sectional study was held within the MOH health institutions in North Batinah Region to explore the use of health indicators as a tool of quality monitoring and improvement within health services. This presentation illustrates the experience of North Batinah Region in evaluating and weighing different health indicators and comparing different monitoring tools with the

health indicators. The study was found to be extremely beneficial to the health care providers in general and particularly for those working in quality in order to identify the valid, reliable and useful key indicators.

## **The Role of Public Private Partnerships in Pakistan's Health Care System**

*Faheem Ahmed Khanzada, Baqai Medical University, Karachi, Pakistan.*

*Email: fah\_khan@yahoo.com*

**Objective:** To review the situation of public private partnerships of health services in Pakistan.

**Introduction:** In most countries of world, financing as well as the provision of health services has historically involved participants from both public and private sectors. The nature of the interaction is variable but mostly lies within parallel, collaborative, competitive and complementary activities. In parallel, the two sectors coexist with little contact between each other due to different objectives among them, in comparison to collaborative where both sectors work together on the basis of agreed objectives and strategies as a joint venture. While competitive activities have similar objectives and cater to the same clientele which may results in a situation where the two compete with each other for control, whereas complementary collaboration between the sectors is independent and complements the two depending on the situation.

**Pakistan Scenario:** Public Private Partnerships in Pakistan had instituted to national health policy in 1960 and started to incorporate social responsibility in order to serve the nation until the present date. The government is unable to fulfill its constitutional promise in the provision of health care and bringing reform within the health sector in Pakistan. The government spends money on national security over human development. Pakistan is facing a double burden of diseases and failing to overcome the poliomyelitis disease etc. The policies in Pakistan remain largely of no concern to the total quality of health services reflecting variable interactions e.g. District Rahim Yar Khan. The infant and maternal mortality rates in Pakistan are 80/1000 live births and 340/100,000 live births which are high compared to other developing countries.

**Conclusion:** Public Private Partnership is a total multidisciplinary and multi-sectoral approach to promote the practice and delivery of quality health care services, leading to improvement in health status of the society towards prosperous Pakistan in the 21st century.

## **Quality experience in the Private Sector in Oman**

*Bashir Mohammed, Al Amal Clinic, Muscat, Sultanate of Oman.*

*Email: drbashiralamal@yahoo.co.uk*

**Introduction:** Al Amal Medical Centre (AMC) recently underwent a brand audit by the healthcare consultancy from India for human resource development, staff welfare and wellness for family members. This centre is a multi-specialty with specialists in all fields of medicine, surgery, etc, serving primary and secondary healthcare with medical officers general practitioners, family physicians, physical medicine and rehabilitation with sport and orthopedic, dental, ENT, gynecology & obstetrics, ophthalmology, child health, ergonomic lab, fitness unit, with regular CPD.

**Methodology:** Since inception, from 1995 to 2009, various aspects, parameters, strengths, weaknesses, patient satisfaction survey, laboratory calibrations and ISO recognitions were analyzed.

**Objective:** To offer a new solutions to old problems. (1) Pre-empting is the mother of innovation or global innovation conferences, work culture that promotes innovation which is a natural phenomenon. (2) Probiotics - there are many other such as pioneering efforts and researches in healthcare industries. The viable manufacturing projects can be undertaken by big corporates with venture capitals and foreign collaboration. Survival and growth of the organisation is important. (3) Converting risk taking adversity to opportunity and beg or borrow strategies to be laid out with the proper authority concerned.

With Omans' economy moving towards a structural shift, the healthcare sector has taken major strides over the past fifteen years. There are healthcare successes and failure stories in Oman. There is need to build healthcare awareness, lifestyle modifications, mass health education, and more, and establish the brand globally continue evidence based medicine (EBM), conferences, educate others and be educated.

**Conclusion:** Amid the global economic uncertainty, and the fear of pandemic H1N1 flu as well as budget restrictions, a healthcare regulatory body should consider a Public Private Partnership (PPP) approach as adopted in Al Amal Medical Centre, under the MOH guidelines recognized and certified by the British Standard Institute from 2001. Furthermore, consideration is to be given to bridging the gap, as Gulf countries are copying certain healthcare developments from Oman.

## Delivering Quality Care through Strengthening Information Education Communication (IEC) Activities

Judith A Noronba, Aparna Bhaduri, Vinod Bhat. College of Nursing, Sultan Qaboos University, Muscat, Sultanate of Oman.

Email: juval12@gmail.com

**Introduction:** Iron deficiency anemia is a major public health concern among pregnant women. Iron supplementation programs have not proven to be an easy approach for combating IDA. One of the key obstacles is the low level of compliance with iron tablet consumption. Results from different studies show that consumer knowledge regarding anemia is low; however, when consumers are informed, the compliance rate for taking iron tablets increases. Unfortunately, consumer ignorance is caused in part by the health providers' limitations, including lack of knowledge about anemia and iron tablets, and insufficient communication and counseling skills. Improving health knowledge has been effective in improving the compliance of women for preventing iron deficiency anemia in pregnancy.

**Methods:** This study aims to determine the effectiveness of a health information package in combating anemia during pregnancy using a quasi experimental pretest post test control group design. The sample consisted of 225 anemic pregnant women randomly allocated in experimental (n=75) and control groups A (n=75). The control Group B had 75 subjects who were non anemic. The outcome measure was knowledge gain, improved food selection ability, compliance to iron and folic acid supplementation and increased hemoglobin level. The health information package consisted of information about anemia and its prevention (individual teaching +pamphlet + real nutritional food items), Iron supplementation and deworming if required. The control groups received only iron supplementation and deworming if required. For ethical reasons iron supplementation could not be withheld for both the control groups.

**Major Findings:** The findings showed that the mean posttest knowledge score (38.37) of the experimental group subjects was higher than their mean pretest knowledge scores (9.40) in the experimental group. The Anova computed between the mean gain of knowledge scores of the experimental group and control groups A and B showed that the F ratio was ( $F_{(2,190)}=11.910, p<0.01$ ) indicating that the three groups differed significantly in terms of their knowledge about anemia and its prevention. The Post hoc Bonferoni test was significant between the experimental and the control group A (26.48,  $p<0.1$ ); the experimental and control group B (26.6,  $p<0.01$ ). The mean gain in knowledge between control

group A and B was not significant (0.16,  $p<0.01$ ). With regards to food selection ability scores for the experimental, control group A and B; the F ratio was significant ( $F_{(2,190)}=20.92, p<0.01$ ) indicating that the groups differed significantly in their food selection ability. Nearly 61.2% of the subjects in the experimental group became non anemic after the intervention compared to control group A. The findings also revealed that in control group B, 25% of them became anemic in the posttest. A majority of the compliant women (75%) in the experimental group became non anemic on the 90<sup>th</sup> day while 25% were partially compliant and remained anemic on the 90<sup>th</sup> day. In control Group A, 78.05% were partially compliant and remained anemic, whereas 9 % became non anemic. This indicated that better the compliance, the lower the prevalence of anemia.

**Conclusion:** The study findings indicated that strengthening IEC activities plays a pivotal role in delivering quality care with improved health outcomes. Effective communication with recipients of care facilitates health seeking behavior, raises client expectations and brings improved outcomes.

## What Every Department Needs to Know about Measuring its HR Performance: Performance Indicators, Balanced Scorecards and other Tools as used in Saudi Arabia Hospitals

Saeed Al Qabtnani, Planning Department and Quality Management Consultant, King Fahad Specialist Hospital, Dammam, Saudi Arabi.

Email: saeed1994@hotmail.com

The Human Resources Department (HRD) plays a vital role in any organization which performs different functions like recruitment, retention, and selection and so forth. Most institutions struggle to measure their HR performance but hospitals are different, because there is lack of HR professionals, documentation system and unclear process. Therefore it is necessary to measure the human resources performance in healthcare institutions in order to, identify areas which need to be improved in the human resources department, comply with hospital strategic plans, and to determine the productivity for each employee as well as to develop staff retention strategies. On the other hand; there are some tools used for measuring performance of human resources like, Key Performance Indicators, Balance Score cards and surveys.

In reality, there are some difficulties facing HR professionals that are needed in order to measure the performance of the Human Resources Department in hospitals such as:

1. No strategic goals in HRD



2. Most of Directors are not specialized in HRD.
3. High staff turn-over rate (nurses)
4. Absence of systematic process (recruitment process)
5. Absence of documentation system like policies and procedures
6. The relationship between HR and other departments is very weak.
7. No staffing plan

Also, the complexity of services, medical recruitment processes, patient satisfaction and free treatment are factors that lead HR Directors in health institutions to be concerned when they need to measure performance. Again, it is very important to measure performance of the HRD through specific performance measures such as staff satisfaction rate, employee retention rate and number of safety courses. Additionally, top management should realize the role of HR and put it in their agenda during allocation of the annual budget.

### **Project-based and Self-guided Patient Safety Training in Spain: Methodology, Materials and Results**

Agra, Y,<sup>1</sup> Fernández-Quero P,<sup>1</sup> Recio M,<sup>2</sup> Hernández A,<sup>2</sup> Rodríguez D,<sup>2</sup> Martín B,<sup>2</sup>

<sup>1</sup>Ministerio de Sanidad y Política Social de España, <sup>2</sup>Universidad Carlos III de Madrid, Spain.

Email: [mrelia@ing.uc3m.es](mailto:mrelia@ing.uc3m.es)

The Teaching Programme (TP) of the Spanish Patient Safety Strategy uses a multi-faceted methodology in order to promote the patient safety culture at national level. One of the key objectives of this programme is to improve the professionals' knowledge, skills and attitudes in risk management. For this reason, project-based and self-guided on-line training courses in Risk Management (RMC) and patient safety (PS) improvement, that combine reactive and proactive approaches to Patient Safety Improvement, were specifically designed and included in an electronic platform of the TP. The platform has been developed with all the appropriate tools necessary to allow the participants: to know at any time their progression, communicate, and exchange all the information required with the group of expert tutors (which provide continued support to the project-based course). The courses, accredited by the Spanish Ministry of Health, include theoretical contents on the RM processes and practical RM tools clearly detailed with examples and practical cases, through templates and clear formats, to allow their implementation in different health organizations.

The project-based training is a 120 hours course aimed for managers and clinical professionals, grouped for 3-4 people teams

linked professionally in order to finally develop a PS improvement project on their field of work. The Project consists of a set of 16 steps where professionals use the methodology and tools provided in the course, and contextualize them on their healthcare unit/area.

Self-guided training consists of a set of 20 to 50 hour courses, which describe and exemplify the different phases, techniques and tools involved in Patient Safety Improvement.

A database has been designed in order to analyze the projects and provide free-access to all professionals interested in PS. Reports can be produced by using different filters (field, area, type of health-care centre, unit, PS topic, PS management tool, etc). For both, access and ad-hoc query to get the reports, a WEB interface is used. With the data retrieved from 170 projects up to date by more than 900 professionals, an analysis has been carried out in order to identify them according to the specialists from each of the areas studied in order to evaluate which are the most relevant risks, and which are the most efficient actions to manage and prevent them.

**Results:** In the period of 2005-2009, a total of 15 RMC editions have been completed with the participation of 900 health professionals from Spain, Latin-America, Europe and other countries around the world (in collaboration with the European Community, World Health Organization and Pan-American Health Organization).

The level of satisfaction expressed by the students on the quality survey was very high (4.4 on a 5 points scale). The most valued aspects of the course were: the materials (intuitive and easy to understand), methodology and communication with the tutorial team (high clarity and technical quality comments). For the project-based course and the self-guided courses, additional key success factors shall be discussed. For the health areas and PS topics studied using the ONLINE course projects, a database has been developed which summarizes the use of the different RM tools.

As a result from the analysis of the PS improvement projects loaded onto the Database, a good practice report has been generated, which summarizes which are the most relevant risks determined by healthcare areas and by PS topics, according to the professionals of each of these specific areas, and what are the most efficient actions to prevent them. For 2010, six calls of the course are to be carried out, including possible new English editions in collaboration with the European Community and the World Health Organization (WHO).

### **Critical Care Outreach: A Partnership for Quality and Safety Improvement in the Care of the Acutely III Hospitalized Patient**

---

*Elizabeth P. Reid, Unit Nurse, Royal Hospital, Ministry of Health, Muscat, Sultanate of Oman.*

*Email: edarwish97@gmail.com*

**Overview:** An aging population with multiple co-morbidities often means that high risk acutely ill patients are nursed in the general ward environment. These high acuity patients are at risk of deterioration which may lead to cardiac arrest or even death.

Literature has identified that many of these patients have had significant changes in vital signs prior to these events and evidence shows that early identification and prompt management can result in patients' lives being saved, reduced morbidity, avoidance of ICU admission as well as decreased length of stay.

Research demonstrates that the implementation of various emergency response teams improve the identification and care of these patients. The Royal Hospital's nursing department, in recognition of these developments, proposes to implement a nurse led critical care outreach team.

**Objective:** The purpose of this presentation is to address the impact of Critical Care Outreach as a process of quality improvement in patient care, improved communication between health care workers and an increase in patient/relatives and staff satisfaction.

**Conclusion:** The early recognition of patient deterioration plays a large role in the outcome of the patient. A coordinated response to subtle changes in a patient's condition is necessary to reduce morbidity and mortality.

### **Attaining Excellence in Health Care: No Option**

---

*Amr Taman, Quality Management & Patient Safety, Ministry of Health, Muscat, Sultanate of Oman.*

*Email: amr2963@yahoo.com*

Patients, health care professionals and policy makers are becoming all too painfully aware of the shortcomings of the current health care delivery systems and the importance of finding better approaches to meet the health care needs of all citizens. Health care must be delivered by systems that are carefully and consciously designed to provide care that is safe, effective, efficient, accessible, patient centered, timely and equitable.

This presentation addresses principles of attaining excellence in health care; how care processes can be designed to optimize responsiveness to patient needs, encouraging involvement of teams, fostering the use of information technology in clinical care, rewarding performance improvement as well as a framework for building a culture of quality (CoQ) within health care organizations.

The presentation does not offer a simple prescription, but a vision of what is possible and the path that can be taken. It would not be an easy road, but it would be worthwhile.

### **The Role of Innovative Lateral Thinking in the Enhancement of Quality of Healthcare**

---

*Suresh Venugopal, Laboratory, Al Nahdha Hospital, Muscat, Sultanate of Oman.*

*Email: Sure5155@omantel.net.om*

Think differently or laterally. For decades, stomach ulcers were thought to be caused by acid until someone thought differently and proved that *H pylori*, a bacterium, is responsible for ulcers. This transformed the way ulcers are now approached and treated. Instead of having purple, green, blue, yellow and red vacutainers, just think if there were only just two types of vacutainers (viz.) black and white? And why not have painless blood collection? Why is there not a small instrument design to give reading of Hemoglobin, white blood cell count and platelet count from a single drop of blood? Why is there not a robot to perform the routine, repetitive activities for the health professionals? Think of when washing hands, but the clothes are still loaded with microorganisms then they reach home and cause to spread infections. Is it not possible to think of and make a room near the exit that sterilises the whole body?

The health care professionals are we often ignored. Let each health institution conduct a preventive check up of all their staff for blood sugar, blood pressure and cholesterol once every year. One should not make a hue and cry about the increasing incidence of Lifestyle diseases in Oman. This can be avoided by removing chips, cola and chocolates from our cafeteria and replace them with vegetable salad, fruits and coconut water. The goal is to make everyone think and act on the ideas presented for better quality of health services in Oman. It is worthwhile to remember that 'Thinkers' have always been responsible for the continual improvement of quality of medical services to mankind in this wonderful world.

## The Concept of Integrative Medicine Clinic

---

Vrunda J. P., Dr Sheela Gorge, FAMCO, Sultan Qaboos University Hospital, Muscat, Oman.

Email: vrunda@squ.edu.om

Integrative medicine (IM) seeks to incorporate treatment options from conventional and alternative approaches, taking into account not only physical symptoms, but also psychological, social and spiritual aspects of health and illnesses." IM promises more time, more attention, and a broader approach to healing. It is one that is not based solely on the Western biomedical model, but also draws from other cultures. In addition, there is deep dissatisfaction with a health care system of feeling rushed and overwhelmed, and which pays too much importance to lab data; thus many patients feel as if they are nothing more than diseased livers or damaged joints. A typical IM service includes a holistic physician–dietitian–physiotherapist–psychologist–nurse, Yoga therapist, biofeedback, and other stress reduction technique exerts, social worker, massage therapist, acupuncturist, herbal medicine expert, hypnotherapist, in varied combinations. The clinic offers individual sessions, including a review of medical records; listing the expectations; explanations; choosing and implementing holistic solutions and planning for future sessions. Group sessions are a non-conventional approach and would address use of Relaxation techniques, Creative imagery, Yoga-Relaxation techniques; Rejuvenating techniques, Healing etc. IM approach has significant evidences of success as an alternative approach. A study conducted in 1993 showed that one in three Americans had used an alternative therapy, often with out-of-pocket expenditure. The percentage of western hospitals that offer IM approaches is increasing (8.6% in 1998 to almost 20% in 2004). Annual visits to IM clinics are reported to be more than the mainstream clinic/hospital visits in Australia and Europe. Studies show that patients choosing IM sources are highly educated and pay for services (rather than dependant on insurance). In the USA, 42 academic medical centers, including those at Harvard, Columbia, Georgetown, and the University of Pennsylvania, have IM health programs. Some important limiting factors for adopting the IM approach are the lack of 'scientific' evidence for several of the interventions, lack of awareness, skepticism and mistrust. The consequences of these are the three recognized hurdles in implementing IM programs: physician's resistance (44%); budgetary constraints" (65%) and; Lack of evidence-based research (39%). Adopting an IM approach may lead to enhanced patient satisfaction and improved outcomes. Structured studies are necessary in this growing field. Availability of an IM clinic in a University Hospital such as SQU could provide an environment for objective evaluation of IM approaches.

## Attaining Excellence

---

Dato' Sheikh Omar Abdul Rahman, Director of Corporate Planning, University Putra Malaysia

Email: drsoar@soarconsultings.com

Attaining excellence means providing an excellent climate of hospitality and individualized service. It requires a huge improvement in professional service to internal and external customers - patients, their families, the medical staff, and each other. Medical competence of health care providers is the first priority among patients and their families. Caring is a close second, coming across through a high sense of empathy and effective communication skills. Caring about others should come naturally as part of shared values of integrity, true professionalism, team work and customer-assured safety. The real challenge is showing that you care, even when you are busy, tired or focused on getting the job done.

The journey of attaining excellence requires:

- building patient loyalty and advertising through word of mouth,
- embracing shared values in the workforce,
- encouraging employee teamwork,
- improving attitude, morale and communication,
- reducing customer complaints and staff turnover,
- reinforcing the customer service philosophy,
- empowering staff to deal more effectively with third-party providers, and
- supporting continuous quality improvement initiatives

The paper elaborates in some details the points mentioned above.

## Moving Quality Forward

---

Dato' Sheikh Omar Abdul Rahman Director of Corporate Planning, University Putra Malaysia

Email: drsoar@soarconsultings.com

Quality health care is really about doing the right thing, the right way and at the right time and for the right reason which is to achieve the best possible results. It is also about striking the right balance of services by avoiding underuse and overuse as well as eliminating misuse.

Moving quality forward means seeking excellence through continual quality improvement in teaching, research, patient services and staff development. It requires market intelligence, clarity of purpose, strategic leadership and management, strong

supportive infrastructure and empowered teams. Every part of the health care system must be involved, including government and non-government organizations, doctors, nurses, pharmacists, hospitals and patients. It starts with a strong commitment at providing a compassionate, ethical, and accessible general and specialized tertiary care to the community with integrity, commitment and respect towards patients and their families. It requires organizational capacity, including information technology and specialized expertise. Accreditation by a private, independent group is a necessary indicator to judge quality. It is a "seal of approval" to show that the hospital has met national standards in providing quality health care.

This paper elaborates on the points mentioned above in more details. It also raises the question: "Are You Ready for Tomorrow's Healthcare Challenges?"

## Poster Presentation

### Online Continuous Nursing Education; Impact on Nurses' Clinical Practice

---

*Samah Abdulla Al Araimi, CCU, Royal Hospital, Ministry of Health, Muscat, Sultanate of Oman.*

*Email: omahmed2008@windowslive.com*

**Introduction:** Learning is the process of developing skills or knowledge. Continuous education is an essential element in improving the level of knowledge of health care providers. With the shift in learning patterns and the prevalence of technology, health care workers can now find online learning available everywhere. On-line continuous nursing education (CNE) is one of the most efficient ways to help nurses improve their academic performance. On-line courses can fulfill nurses' needs while they are at home at their own pace.

**Objective:** This presentation aims to explore the wide range of online resources available for nurses as well as a way of identifying the good, the bad and ugly web sites. While they are many advantages of this from learning, nurses have to be aware of the associated disadvantages. Understanding of the main components of E-Learning helps nurses to improve their academic performance. Studies on the impact of online courses on nurses' clinical practice, showed most of the nurses were satisfied and developed more skills.

**Conclusion:** E-learning is an internationally accepted mode of learning. Being well informed as to how to use it is the key to success.

### In-Patient Satisfaction with Nursing Courtesy

---

*Fatma Al Dhabbari<sup>1</sup>, Thavamony<sup>2</sup>, Augustine<sup>3</sup>, Belle Jaafar, Nursing Directorate<sup>1</sup>, 2 Red<sup>2</sup>, Psychiatry Ward<sup>3</sup>, Ward 3 Yellow, Sultan Qaboos University Hospital, Muscat, Sultanate of Oman.*

*Email: quality-nrs@squ.edu.om*

**Introduction:** Patient perceptions of their satisfaction with care are increasingly used to measure quality of nursing care. Satisfaction with care is the rating or evaluation of a service based on a comparative balance between patients' perceptions of the service provided and their expectations for the service rendered.

**Objective:** The survey of in-patient satisfaction with nursing courtesy was conducted and the aim of the survey was to describe the influences on patient satisfaction with regards to nursing courtesy in the context of admission, physical environment, physical comfort, emotional support, respect for preferences, patient' expectations regarding nursing care, diet, communication and information.

The study was proposed by the Nursing Quality & Special Projects Unit and approved by the Nursing Director. The sample was comprised of 18 wards in 250 randomly selected patients/ attendants. The data was collected from 25<sup>th</sup> October – 8<sup>th</sup> November 2009. Questionnaires were used for data collection. A group of 11 Omani Nurses participated in the survey.

**Results:** The result from the survey were encouraging. Patients expressed satisfaction with the quality of nursing care provided to them by nurses. Two particular areas of nursing care were shown to be in need of improvement, these were; patient education and the unacceptable level of noise on the ward.

**Conclusion:** Based on the results from the survey, efforts should be made to extend patient/family education. Interventions aimed at reducing the level of noise particularly at night and during the resting period, will also be instigated.

### Patient Satisfaction Survey in Out Patient Departments (OPDs)

---

*Salima Yousuf Saleh Al Farsi, Quality Assurance Department, Sur Hospital, Sur, Sultanate of Oman.*

*Email: mathayel2009@gamil.com*

**Introduction:** In this day and age, quality in healthcare is an important issue for healthcare organizations. In addition, there is moral obligation to all customers served such as clients, employees, employers, physicians, organizations and the general public. Patient satisfaction is considered to be a crucial type of tool



used to evaluate the service provided by health care workers. The aim of this survey is to measure the level of patient satisfaction in outpatient departments at Sur Hospital and to find out the main deficiencies related to medical and nursing care service provided.

**Methodology:** The survey was conducted using the convenience systematic random sample. A total number of 192 questionnaires from different OPDs such as ophthalmology, A&E, Medicine, Cardiology, Diabetic, Gastroenterology, Nephrology, General Surgery, Orthopedics, ENT, Chest, and Oncology were randomly selected for this survey. A questionnaire was adopted from RAND and UMQC (PSQ-18), consisting of 39 questions and it was developed and approved by the committee members. It consisted of four sections related to doctors, nurses, other healthcare workers and general health services.

**Result:** Out of a total number of 192 questionnaires, which were distributed, only 188 questionnaires were completed and submitted. Analysis of the data showed the following: The survey was conducted in the period of 1<sup>st</sup> of June to the end of September 2007 at Sur hospital. The data was analyzed by using SPSS program. There were 79 males (42%), and 159 (58%) females. The sample age was 20-60 years. Half of the sample group were between the age of 20-30 years. The majority of the subjects (72%) were educated to secondary level and majority were married (59%) and were employed 39%. 45% of patients stated that the doctors were using medical terminology while treating them and 73% of them agreed that sufficient time was allocated for consultancy. Most of the doctors 73% were polite while caring for the patients and the overall percentage obtained for physician services provided was 64%. On the other hand, nurses showed the highest percentage (82%) regarding communication with the patients and their explanation of any procedure related to them. 78% of patients felt comfortable while the nurses were performing any procedures for them. The way nurses dealt with the patients and their politeness and courtesy was satisfactory to 78% of the sample group. Regarding the services provided to patients from different departments and their courtesy and caring; the majority of patients responded toward different departments as the following: pharmacy, radiology, laboratory, and Medical Records and the results were 74%, 70%, 65% and 67% respectively. Most of the patients mentioned that the health education service was poor in the hospital and it represents only 49% as compared to other health services. In response to the number of visiting times for the hospital during this year, most of the patients revealed that they visited the hospital around 2-4 times. Moreover, with regards to the question relating to the waiting times until the patients are

seen by the doctors, 33% of patients stated that they had to wait for more than 40 minutes.

**Conclusion:** Overall, the patient satisfaction survey generally showed that there was poor awareness of the importance of this survey and its impact on improving the services provided. The patients should be actively involved in identifying the organization's quality of care. It is important to believe in the consumer-based service philosophy.

### **The ABC's of Quality Culture**

*Yasmeen Al Hatmi & Quality Team, Directorate of Development and Quality, Sultan Qaboos University Hospital, Muscat, Oman  
Email: yaz4me22yahoo.ca*

Quality elicits the passion that provides the momentum for effective and efficient healthcare management. When healthcare workers absorb the values of quality, various measures of development, improvement and prevention are accomplished while emphasizing collaboration and empowerment. Encouraging the development of a quality culture of an organization addresses values, attitudes, perceptions, competencies and patterns of behavior that determines the commitment to the organization's quality management. This abstract attempts to provide an effective method of initiating quality guidelines, through the ABC method, for a hospital-wide approach in the SQUH organization.

The most basic dimension of performance necessary for the improvement of healthcare is quality. It is the underlying reason for patient safety, incidence reporting, risk management, infection control, internal auditing and environmental management programs. It is the reason for insist on qualified clinical practitioners and support staff, validating education, expertise and other credentials such as providing appropriate orientation and continuing education and performing appraisals.

### **In-patient Satisfaction Survey**

*Khalfan K. Al Kharusi, Salim Ambusaidi, Quality Assurance Department, Nizwa Hospital, Muscat, Sultanate of Oman.  
Email: kharoos2000@hotmail.com*

**Objective:** To determine the degree of patients satisfaction against the different services introduced by Nizwa Hospital and to improve the quality of services at Nizwa Hospital.

**Methodology:** The Quality Assurance Department (QAD) conducted a survey to assess the degree of In-patients' satisfaction at Nizwa Hospital. Seven areas (services) were included in the

survey; accident and emergency, admission process, dietary services, cleaning services and general environment, nursing, doctors and patients' services. QAD designed questionnaires and admitted patients (male and female) were asked to answer them and some patients were helped by nurses. Each answer was graded as Excellent (3 points), good (2 points), weak (1 points) and no answer (Zero points). 100 patients were included in the survey and selected randomly from different specialties in in-patients' wards/units. None of the patients declined to participate in the survey. Results obtained were statistically analyzed and the average of patients' satisfaction was calculated accordingly.

**Results:** The cleaning services had the maximum patient satisfaction rate (79%), time of room cleaning got the highest rate, while the overall cleaning of rooms and corridors was the least satisfying service. The admission process was the 2nd best satisfying aspect in the survey with average satisfaction of 77%, while dietary services was the 3rd in degree of patient satisfaction (76%). The most satisfactory point in dietary services was the taste of food provided, while the level of diet technicians' cooperation got the least score. The A/E unit was the next in terms of satisfaction; nursing care and communication with patient were the best points, while the waiting time was a point of dissatisfaction. Patient orientation to the wards and doctors' care both were equal in degree of satisfaction (average of 66% each). Welcoming of patients and families were the least satisfying points and need great attention. Patients' services and general environment both were equally expressed (average of 62%). Finally, nursing care of patients in general was the least satisfying point in the survey with an average satisfaction rate (58%).

**Conclusion:** Patient satisfaction is an important objective, this survey highlighted many aspects of patient satisfaction, and it revealed many positive points but also revealed many negative points. Overall, communication with patients and their relatives is an important aspect of patient satisfaction.

### Care Not Documented Is Care Not Given

*Cathy C. Lausa and Documentation Working Group, Nursing Directorate, Sultan Qaboos University Hospital, Muscat, Sultanate of Oman.*

Documentation by nurses has a central role in the quality care of any patient in a hospital. Documentation means "to give written information that is proof or support of something that has been done (Care Plan) or observed and its outcome". A vital component of a "Safe Patient Care" is an excellent Nursing Documentation System.

Extensive strides have been made and are on-going in the SQUH Nursing Directorate towards improving the documentation system. Staff were confronted by a complex array of challenges often subjecting nurses to be at fault due to lack of evidence.

A good documentation system is not come to implement. It takes time to record data accurately. Although good documentation takes time and effort, it ensures that records do not become lost in the parade of erroneous and "mindless" charting. It is worth the effort to have the protection necessary for staff and patients.

Documentation serves many purposes. It is used to record the course of patient problems, treatment, and responses to treatment; and also facilitates the coordination of healthcare efforts, provides means for continuity of care; document compliance with accreditation standards and regulatory agencies; provides an objective basis for insurance reimbursement; provides data for research and clinical trials; demonstrates that the patient and/or family members were kept informed about the patient's condition, care options, and ways in which the patient can maximize his or her outcome; and also serves as a legal record. Long after memories fade, the well-documented medical records will be there to support the healthcare provider, should the need arise.

### Age Appropriate Postoperative Pain Assessment Tool (APAT) as a Tool to Measure Postoperative Pain in Children

*Assuma Beevi.T.M., College of Nursing, Sultan Qaboos University, Muscat, Sultanate of Oman.*

*Email: assuma@squ.edu.om*

**Introduction:** Effective postoperative pain management decreases suffering and shortens hospital stay for children. Many research based protocols for the assessment of pain in children have been developed (Mc Rae, Rourke, Imperial –Perez, Eisenring & Ueda, 1997) but such a tool was lacking in India. Hence an age appropriate postoperative pain assessment tool was developed for children (0-5 years) incorporating physiological, behavioral, neuromuscular and miscellaneous features of pain. Initially, two versions of the tool (APAT) were developed for infants (0-1 year) and children (1-5 years) with 150 postoperative infants and children. On the basis of the findings, the investigator proposed the use of a common tool for assessing postoperative pain in children (0-5 years) incorporating items that had more than 90% agreement in rating postoperative pain.

**Objective:** The purpose of this study is to empirically test the psychometric properties of the capsular version of the tool

(APAT) as a common tool for postoperative infants and children (0-5 years).

A convenience sample of 25 children between the age of 18-33 months with mean age of 17.8 months (SD 7.58) were studied. The tool was administered before and after pain medication. Premedication time was defined as 10 minutes before medication. Post medication time was defined as 20-30 minutes after Paracetamol injection or suppository. Nurses administered the tool were blinded to pain medication. The construct validity was examined using known group technique. There was a statistical significant difference in the premedication and post medication scores for all 25 pairs.  $Z=4.409$ ,  $p=0.000$ . The variables measured were significantly reduced after pain medication. All the values showed a significant correlation with value  $z=0.000$ .

**Discussion:** Testing construct validity of APAT showed that it is a valid and a reliable tool to measure children's postoperative pain. This analysis provided power of 1.00 with an alpha of 0.01 for the differences of pre and post medication scores.

### Discharge Planning in a Tertiary Referral Hospital in Oman

*Merlyn A Johnston, Discharge Planning Coordinator, Royal Hospital, Muscat, Sultanate of Oman.*

*Email: merlyn.j@moh.gov.om*

**Introduction:** Discharge planning is a process whereby hospitals prepare for safe, timely discharge of patients from one level of care to another. Discharge planning is practiced internationally to reduce the length of hospital stay while avoiding unplanned readmissions. Nurses do have ample opportunities to develop the skills necessary for coordinating the safe transition of care from hospital to home. The Royal Hospital of Oman is in the process of implementing discharge planning. In Oman, government healthcare provision starts at local Health Centres, referring to Polyclinics and local hospitals. Complex cases are referred to tertiary hospitals. Challenges include addressing those issues that hinder the working collaboration of the multidisciplinary team, a perception that the best care can only be provided by tertiary hospitals and failure by the public to make full use of community resources. There is a need to expand the community nurse service, to encourage family members to provide care in their homes and to consider the development of nursing homes. Discharge planning should start at the earliest point of admission and involves a multidisciplinary team.

**Conclusion:** Multidisciplinary planning, involving services in the

hospital and the community, can ensure the best use of resources and that optimal patient care is maintained beyond the point of discharge.

### Swiss Cheese Model

*Mohamed Kamal, Directorate of Health, North Batinah Region, Ministry of Health, Sultanate of Oman.*

*Email: kamal7112004@yhao.com*

In 1990, James Reason developed his theory known as "Swiss Cheese". It stressed on building a system of defense layers between hazards from one side, and people and assets on the other sides. However, those defenses are rarely perfect and often they have holes due to latent failure or even active failure. In other words, hazards are prevented from causing human or assets loss or injuries by a series of barriers, each barrier has unintended weaknesses or holes. These holes could be constant or inconsistent (open and close depending upon different factors such as human, technical, policies, etc).

This presentation, attempts to simplify the Swiss Cheese model to enable health care providers to use it in problem solving as well as identifying the root cause of problems. It is valuable to share the model in order to emphasize on system errors versus human errors. Also it helps staff to develop skills related to problem solving techniques.

### Knowledge and Practice of Administering Oral Medication as per MoH Guidelines by Nursing Staff of Ibri Regional Hospital

*Aisha Khalfan, Hind Ali, John Idikula, Ibri Regional Hospital, Ministry of Health, Ibri, Sultanate of Oman.*

*Email: aisha-moh2009@hotmail.com*

**Introduction:** Failure to comply with the MoH guidelines in administering oral medication can result in medical errors. Compliance to established guidelines will help to standardize practice and reduce errors.

**Materials and Methods:** A self administered questionnaire to report the level of knowledge and the extent of compliance to the practice of the guidelines was conducted. A 160 self administering questionnaire was given to all staff in all wards.

**Result:** 129 responses were received. 59.7% of the respondents had  $\geq 7$  years experience; where as 40.3% had  $\leq 7$  years experience. Awareness regarding the MoH policy was reported as (Good, Very Good or Excellent) by only 74.4 % of the subjects.

1. On factors pertaining to the preparation of medication for administration (e.g. chart checking, hand washing, checking the expiry date, etc.) only 40.1% always complied and 59.1% complied most of the time.
2. On factors pertaining to administration of medication, only 2.3 % always complied while 73.2 % complied most of the time.
3. On factors pertaining to any reporting of any drug reaction follow up after administration of medication, 85.8% of the subjects always complied.

There was no overall correlation between the years of experience and the extent of compliance to MoH guidelines or administration of medication.

**Conclusion:** The staff need to improve their knowledge and compliance to the practice of administering oral medication as per MoH policy. Continuing Professional Education, frequent review of MoH guidelines, self motivation to comply to established guidelines etc. are also equally necessary. An observational study should be conducted to determine the actual practice as a follow up of this study.

### **Pain management services experience at Sultan Qaboos University Hospital (SQUH)**

*Salma Said Mahfudh, Nursing Directorate, Sultan Qaboos University Hospital, Muscat, Sultanate of Oman.*

*Email: quality-nrs@squ.edu.om*

#### **Pain Management Service**

The Pain Management Service at SQUH started in Jan. 1993. The purpose of the service was to provide effective and continuous pain relief for hospital referred inpatients and outpatients. The goal was to provide 24 hours management of pain, follow up patients on daily basis and provide immediate care in the event of an emergency related to pain therapy. By May 1996, a 34 hour Pain Management Course for nurses was developed. In January 1997, we formed a Pain Management Committee was formed with regular meetings once a month to discuss Pain Management concerns in the clinical areas. By January 2001, a Pain Management Workshop with participation of international speakers was conducted.

#### **Pain Management, Nurse's Role**

- ♦ To make daily ward rounds to visit patients in pain and to ensure the effectiveness and safety of pain treatment.
- ♦ To coordinate teaching programmes by conducting lectures, courses, speaking at conferences, developing patient information

booklets and to give lectures to doctors on Palliative Care and the use of different therapies.

- ♦ To introduce and ensure safe and effective use of new methods of pain relief such as, Epidural, Patient Controlled Analgesia and Continuous Intravenous Infusion of Opioids, in the clinical settings.
- ♦ To conduct Pain Management audits annually and researches and to give the audit results to all the concerned staff. This has led to focus in improvement of care and patient satisfaction.
- ♦ To develop Pain Management policies, procedures, guidelines, standards, forms, to publish guidelines for doctors, nurses, and patients and to introduced Pain Assessment Scales, in order to assess and evaluate the effectiveness of treatments.

Finally, Annual Patient Audits have indicated that the patients are satisfied with the way the staff control their pain and symptoms.

### **Inpatient Perception of Safety**

*Norah Ngcamu & Working Group, 2Blue Ward, Sultan Qaboos University Hospital, Muscat, Sultanate of Oman.*

*Email: b2-nrs@squ.edu.om*

An inpatient perception of safety survey was conducted on a selected clinical areas between November and December 2009. The survey was designed to assess the level of satisfaction patients had from their hospitalization with regards to safety.

Questionnaires were used for data collection. These questionnaires were distributed to patients either the day before their anticipated discharge or the morning of the day of discharge. Patients were informed that their responses would remain anonymous.

The survey results proved to be most informative. Significantly, the responses were overwhelmingly positive with many patients stating that they felt safe in the wards. Two particular areas of nursing care were shown to be in need of improvement. These were the promotion of patient/family attendance at the ward-based discharge education sessions and the medications given to patient were not explained. A frequent complaint from patients was the unacceptable level of noise on the wards.

Based on the results from the survey, efforts will be made to extend patient/family attendance on discharge education sessions, and nurses to spend time explaining the medication served to patients. Interventions aimed at reducing the level of noise on the wards, particularly at night and during the resting period, will also be instigated.



### **Standards of Professional Development to Improve Patient Care; Analysis of the Experience of Participants in the Interdepartmental CMEs at Sultan Qaboos Hospital, Salalah, Oman.**

*Veena Paliwal, Obstetrics and Gynaecology, Sultan Qaboos Hospital, Salalah, Sultanate of Oman.*

*Email: paliwal@omantel.net.om*

**Introduction:** The most recent and important advancement in obstetric care is the multidisciplinary approach in patient care. Patient care depends a lot upon on communication, cooperation and knowledge of the professionals. To improve all these aspects , it is important to look for options of having regular OB/GYN and the related departmental CMES. This study presents an analysis of the experience of participants and the subsequent effect on the patient care at the hospital.

**Subject and Method:** CMEs were organized every alternate month involving various departments. The focus was on different topics of clinical interest viz with the department of Medicine; including SLE in pregnancy, thromboembolism in pregnancy, cardiac diseases in pregnancy along with the department of Anaesthesiology: pain management during labour, and Doppler studies in fetus with the department of Radiology. Symposium on diabetes with pregnancy included obstetricians, diabetologist, nephrologists and ophthalmologist. This analysis was done from January 2009 until August 2009. Most of these activities were accredited by OMSB and the same feedback form was used. This study presents the analysis of all the activities evaluation forms with participants' experience, impact on patient care and interpersonal relationships in patient management.

**Results:** The participants were doctors and paramedical staff including midwives and staff nurses. On an average, 40-70 participants attended the meetings. More than 300 forms were analysed for different events. 100% of participants rated the activities as excellent or very good, while 80-90% said these were very helpful for them in their day to day work. The activities also helped them to interacting with their colleagues from other departments and other facilities like private and health centers in non-formal atmosphere on a regular basis. All of the participants wished for the activities to continue on a regular basis. There was demand for more seats as most of the activities were overbooked. This also helped in choosing topics for next activity (detailed analysis will be presented) and formulate local protocols keeping in mind the patient safety and care.

**Conclusion:** Most of the participants thought it was a worthwhile experience and were happy to attend as a source of knowledge,

interaction and social gathering. At the end they were confident and convinced about the concept of multi-disciplinary care and coordination for better patient care. As Salalah is far from the capital, learning opportunities are limited. Therefore it is important to create opportunities in Salalah at the local level with everybody's support. These experiences can be used for national guidelines as a part of improving patient care.

### **Blood Transfusion Competency Assessment for Nurses at Sultan Qaboos University Hospital (SQUH)**

*Vijayarani.E.Reddy, Janet.B.Ogunjumo, Zaleha. Zaman, Constance Lager. Sultan Qaboos University Hospital, Muscat, Sultanate of Oman.*

*Email: quality-nrs@sqh.edu.om*

Nurses play a major role in blood transfusion and the blood product transfusion chain. With this in mind, this study focuses on the nursing competency for "Developing quality systems in the transfusion chain" (WHO).

Blood transfusions are fraught with risk and there have been many adverse events and medical errors associated with B/T. As a result, the Joint Commission has included blood management performance as an element of hospital accreditation in 2009.

Blood transfusion competency training and assessment has been implemented by the Nursing Directorate, as a strategic measure and a Best Practice initiative at SQUH to achieve Blood Management Safety.

- + This will assure the desired outcomes
- + Improve safety with transfusion therapy
- + Develop and maintain skills in this competency
- + Institute education and training regarding Policy and competency assessments.
- + Institute peer audits to ensure all staff are assessed.

These desired outcomes will ensure optimal patient safety and staff efficiency with regard to blood and blood product transfusions

### **Paediatric Home Care in Chronic Hematological Conditions in Oman—Oman's Experience**

*Nancy Reyes,<sup>1</sup> Norah Ngcamu,<sup>1</sup> Preethy D'souza,<sup>2</sup> Renu G,<sup>2</sup> Barbara Swales,<sup>3</sup>*

*<sup>1</sup>2 Blue Nursing, <sup>2</sup>Clinical tutor College of Nursing, <sup>3</sup>Delivery Ward Nursing, Sultan Qaboos University Hospital, Muscat, Sultanate of Oman.*

*Email: swales\_b@yahoo.co.uk*

### Introduction:

1. The development of acute bleeding episodes is a serious complication of severe haemophilia which requires the administration of factor V111 on a regular basis and frequent admissions to hospital with all its sequelae. With the use of prophylactic factor V111 administration in the home setting, severity of bleeds and permanent joint damage could be prevented and the re admission rate reduced.

2. The prevalence of B Thalassemia trait in Oman is 2%. Increased ferritin levels and chelation therapy is a challenge in the management of children with these conditions, which requires the administration of Desferal to treat iron overload. The subcutaneous route of administration is a simple method of administration and can be taught to the carer to administer at home.

**Objective:** The aim of this study is to determine the success rate of home management to be able to develop more effective strategies in training family members.

**Methods:** The plan to select family members (care givers) of children with haemophilia and B Thalassemia traits who express confidence to follow a training program and implement an individually tailored home based training program using effective training strategies and to establish whether the training strategies were effective.

**Conclusion:** The experience gained will help to develop more effective strategies to train family members, expand the program and incorporate it as evidence based practice care.

### How Health Service Providers Can Make a Difference by Delivering Community Health Focus Projects

*Lee Kok Seng (Psy), Suad Al-Mukhaini (Psy), Balachandran(3R), Christy Salido(3P), Lau P.H (3B), Jane Ding (3Y), Sultan Qaboos University Hospital, Muscat, Sultanate of Oman.*  
Email. ksl@squ.edu.om

**Introduction:** In 2008 the WHO Aims Report on Health care in Oman highlighted the importance of community care. This project will address how health care service providers can reach out to the community and thus, change and improve the quality of community lifestyles. In the UK, America, Australia and some parts of Europe, community care initiatives such as Health Education packages focused on obesity, smoking, early breast screening and healthy lifestyle proved to be a success for these countries.

**Methods:** This project has a community focus which will

educate the public, create awareness and provide them with the knowledge and education in accessing health and social care at an early stage hence preventing unnecessary admissions to hospitals. Furthermore, this project will bring a new dimension to how we as health care providers deliver services and structure the future of care services.

**Conclusion:** This project will be cost effective, reducing the length of period of admissions and thus eventually reduce the mortality and morbidity rates. This project and the poster message will definitely have a positive impact in the health of the nation in Oman.

### Total Quality Management (TQM) Tool In Eye Checkup at AFH Management Tool in Solving the Problem of Delays During the Routine Eye Care Consultation Process in a Health Set up in Oman

*Radha Shenoy, Badar Al Burwani, Department of Ophthalmology, Armed Forces Hospital, Muscat, Sultanate of Oman.*  
Email: shenoyvs@omantel.net.om

**Aim:** To demonstrate usability of the total quality management tool in studying the problem of delays during the routine ophthalmic consultation process in a health care set up in Oman, with a view to provide appropriate solutions.

**Materials and Methods:** Twenty five patients presented for routine ophthalmic check up to the ophthalmology department at the health care centre, were randomly timed on the duration taken for the same check up. The complete evaluation was categorized as 4 stations; Station 1-Visual acuity, refraction, Station 2-Initial evaluation by Ophthalmologist (History, Slitlamp & IOP), Station 3-Dilatation, and Station 4-Evaluation of dilated fundus, diagnosis and treatment. Each station was stipulated to finish within 15 minutes time, so that the whole consultation process was over by 1 hour. The mean of the excess time at each station was calculated, the causes for delays identified, and appropriate solutions provided.

**Result:** 21 out of 25 patients (84 %) took more than 1 hour for the complete eye check up. Delays noted were as follows; Station 1 (3/21 =14.2%), Station 2 (7/21=33.3%) Station 3 (6 /21 = 28.7%) and Station 4 (5/21=23.8%). The causes of delay at the worst stations (2 and 3) were; disorganization and lack of support personnel.

**Conclusion:** The TQM tool was found useful in studying the problem of delays in routine eye check up in the hospital according to this study. The delays were found to be related to

the departmental and organizational set up and could result in efficient use of time and personnel as well as an increase in patient satisfaction if tackled.

### **Enhancing Professionalism for the Delivery of Quality Care**

*Venaigavathie Sally Perumaul, Department of Ophthalmology and Ophthalmology OR, Armed Forces Hospital, Muscat, Sultanate of Oman.*

The escalating commercialization and secularization of the health care profession have evoked in many healthcare professionals a passionate desire to reconnect with the core values, practices, and behaviors that they see as exemplifying the very best of what healthcare is about. Historically, the legitimacy of healthcare was based on three distinct claims, first; that the knowledge and competence of the professional have been validated by a community of peers, second; that this knowledge has a scientific basis, and third; that the professional's judgment and advice are oriented toward a set of values. These aspects of legitimacy correspond to the collegial, cognitive and moral attributes that define a professional.

Competence and expertise are certainly the basis of patient care, but other characteristics of a professional are equally important. Being a professional implies a commitment to excellence and integrity in all undertakings. It places the responsibility to serve (care for) others above self-interest and reward. Accordingly, healthcare professionals must act as role models by exemplifying this commitment and responsibility, so that peers and students are exposed to and learn the kinds of behaviors that constitute professionalism. Professionalism is the basis of the contract of any health worker with society. To maintain professionalism, and thus preserve the contract with society, it is essential to reestablish the patient relationship as the foundation of patient care.

### **Acknowledgments**

The Oman Medical Specialty Board and Oman Medical Journal's Editorial Board would like to thank Dr. Rashid Al-Abri, Sr. Consultant of ENT and Head of Department, and Directorate of Development and Quality, Sultan Qaboos University Hospital, for his effort in collecting the abstract to be published in the journal.



## **“Submit Proceedings of Conferences or Workshops as Supplements to OMJ”**

- Proceedings of conferences or workshops will be considered as a supplement to the Oman Medical Journal.
- Original work or abstracts will be accepted.
- Material in supplements will be included with the regular issue of the journal or will be distributed separately as supplement.
- Supplements will also be available on the Oman Medical Journal website.