Open Access

Review Article

Role of Technology Upgradation and patient safety in Pediatric population

Mary Anbarasi Johnson *

Professor and Head, Pediatric Nursing Department CMC Vellore.

*Corresponding Author: Mary Anbarasi Johnson, Professor and Head, Pediatric Nursing Department CMC Vellore.

Abstract

Quality assurance in patient care is a very crucial concept and this has to be the top priority for all health care team personnel. There can be a huge gap between   technology development and quality patient care if the issues related to that are not dealt with immediately. The technology development eases the work and protects time for the health personnel but that should not take the nurses away from the golden concept of therapeutic touch, compassionate care etc. Nurses need to spend adequate time in meeting the emotional and learning needs besides the therapeutic care

Key words: cardiopulmonary resuscitation ;   electrocardiography ; notifiable disease

Introduction

Quality assurance in patient care is a very crucial concept and this has to be the top priority for all health care team personnel. There can be a huge gap between   technology development and quality patient care if the issues related to that are not dealt with immediately. The technology development eases the work and protects time for the health personnel but that should not take the nurses away from the golden concept of therapeutic touch, compassionate care etc. Nurses need to spend adequate time in meeting the emotional and learning needs besides the therapeutic care. Patients need to feel at home in the hospital set up and for which besides patient safety concept, psychological domain needs of the patients and their families must not be neglected. Many researches needs to be done to make this lag an evidence based one so that this issue will be addressed with much priority.

Discussion: The concept of Quality Assurance (QA) in nursing service has always been of concern and interest. This has been approached through a process of nurses assuming complete accountability for the quality of care they provide. Optimizing the performance by quality indicators for structure, outcome and process has helped nursing service work with definite objectives and goals.

(a) Revised Version of Clinical Procedure Manual:

A book on Nursing Clinical Procedure Manual was revised and published .A book was provided free to all the heads of the department in nursing and a copy for reference was also distributed to the wards. All newly recruited registered nurses were asked to purchase a book and equip themselves with the procedures and protocols. This helped to bring more clarity to areas of accountability, serve as a standard/guide to existing and newly recruited staff nurses and help establish quality control measures for Quality Assurance activities.

(b) Standing Orders:

Standing orders developed in nursing practice is found to be very effective in promoting patient care and saving their lives aswell saving nursing time wastage

(c) Induction Programme:

There has been steady increase in the number of staff recruited through Nursing Service. The increased need for registered nurses has been related to an (1) increased turnover of registered nurses. (2) increasing numbers of intensive/critical care units of various specialties requiring a higher patient : nurse ratio.(3) increasing number of wards related to an increasing number of patients seeking care in CMC.

With this increasing demand, policies and protocols were revised and nurses were recruited every 3-4 weeks. A more intense induction programme for one week was executed. The instructors included ward sisters and facutlty (department sisters).The three week long, more comprehensive and intensive induction programme has been planned and will be executed from the month of June. This is planned in an attempt to reduce demands on individual departments in holding multiple orientation and inservice education programme and optimizing resources effectively.

During the year 2007 – 2008, there were thirteen induction programmes held and a total of 253 nurses recruited. An induction retreat for half a day was initiated this year in order to induct them to the ethos and philosophy of the institution.

(d) Cardiopulmonary resuscitation programme:

In an attempt to improve the emergency care management, the cardiopulmonary resuscitation (CPR) programme which was planned and conducted bi-weekly was made weekly. A total of 43 classes were conducted and 756 registered nurses went through the programme. All those who received 80% and above in theory and practice were awarded a certificate. The teachings were revised as per the recommendations of the American Heart Association and Power Point presentations were introduced to help standardize the teaching method.

(e) Workshop on Management Update:

A workshop on Management Update was co-ordinated this year again in the month of September and 105 ward sisiters attended the workshop. This was held as two sessions with in-house resourse personnel. This was well appreciated and was held to enhance the knowledge and skill in management settings

(f) Hospital Infection Control:

Surveillance of hospital acquired infections (HAIs) in ICUs , HDUs and hematology units, Reportable and notifiable disease surveillance, housekeeping surveillance, teaching sessions on various aspects of infection controllike standard precautions, waste segregation methods etc. were areas where the nurses contributed to the Hospital infection control committee (HICC)An IV surveillance was also done on 2576 patients in the last year following which the findings were alerted during the ward – incharges meeting and asserted by the department sisters of various clinical areas

(g)Pressure Sores:

As a patient care outcome measurement and quality indicator the prevalence of pressure sores / skin breakdown was surveyed and evaluated throughout the year The forms were revised to highlight and provide improved data on the stage of pressure sores and risk factors causing pressure sore. Guidelines on care were also provided to the wards. The incidence of pressure sores ranged from 70-80/month. with about 2/3 rds admitted with a pre-existing pressure sore

In order to improve patient management system a uniform pressure sore staging tool was introduced .75 % of the total patients are now seen to have stage -2 pressure sore. A PUSH scale was introduced this year to monitor the healing of pressure sores.

(h)Monitoring Falls in the hospital (Incidents and accidents):

Preventing falls in a tertiary and acute care setting requires a multifaceted approach. The risk recognition, evaluation and prevention poses significant challenges to provide a safe environment. The incidence of falls per month is around 10-15. About 50% of them required minor to major diagnostic and interventional measures. Each report was very closely analyzed and the patient closely monitored. An attempt is made to introduce a "Risk asssessment chart" .This would help classify them as mild , moderate and high risk patients. Prevention strategies may be suggested and introduced with more data to justify the risk.

As healthcare technology evolves, nurses serve on the front lines of applying the latest advancements to serve their patients with increasing efficiency and effectiveness. In fact, by 2017, more than 95% of all hospitals in the U.S. had adopted certified electronic medical record (EMR) systems.

Technology and patient monitoring:

Portable monitors give nurses the freedom to check on patients quickly, even when occupied with other tasks. The devices provide data on vitals, such as respiratory rates, electrocardiography, and oxygen levels. Nurses receive an alert if a patient needs urgent attention, which significantly reduces response times.

Medication administration and technology:

Nurses in most healthcare settings no longer need to "make rounds" to monitor patients' IVs, as smart pumps allow for the more accurate and efficient administration of medication and fluids. Nurses use this technology to set how much each patient should receive, while alerts notify them of low levels, poor patient reactions, or issues with tubing.

Technology and patients records:

Through the use of EMRs, nurses and other medical professionals can quickly access critical patient information and reduce or eliminate the need for paperwork. EMRs give nurses current data that notifies them as a patient's condition changes and whether a patient has allergies to certain medications.

Technology and beds management:

Many technological developments have taken place in preventing errors in terms of quality indicators which are well appreciated, but at the same time nurses need to be fully aware that technology can take the personal touch with patients and therefore need to balance between both. This gap needs to be addreeed on a day today basis in the units during nursing care rounds, clinical teachings. clinical meetings and duding the staff development programmes.

Technology and communications:

Today's nurses use team collaboration tools, instant messaging, and headsets that allow them to communicate with their colleagues in real time. These tools make coordinating care much easier, as they reduce the time required to access test results, along with identifying and diagnosing illnesses. Improved communication also provides for more efficient patient handover between departments.

Technology and telehealth:

Patients can increasingly access medical professionals, including nurses, from the comfort of their homes, thanks to mobile apps. Nurses advise patients on many health concerns, while patients update their own data to the apps so that medical professionals can best monitor their conditions and overall health on a regular basis.

Conclusion:

Nurses are the crucial members in the health care team and therefore they can sustain the balance between both the domaims through constant reminders to the colleagues in the health care team if they are empowered well. As much as we value patient safety and quality nursing care through technology development lets also remind ourselves of the need to balance both to sustain and improve compassionate comprehensive , patient and family centered ,dedicated nursing care to our patients.

References

1. https://nursejournal.org/articles/technology-changing-nursing-roles
2. Health care information and management systems society "2022" state or health care report
3. Statisca "Forecasted value of potential annual benefits of AL applications in Health Care world wide 2026 by ALMM.

To Submit Your Article Click Here: **Submit Manuscript**

Ready to submit your research? Choose Auctores and benefit from:

➢ fast, convenient online submission
➢ rigorous peer review by experienced research in your field
➢ rapid publication on acceptance
➢ authors retain copyrights
➢ unique DOI for all articles
➢ immediate, unrestricted online access

At Auctores, research is always in progress.

Learn more https://auctoresonline.org/journals/neuroscience-and-neurological-surgery