

Paediatric Critical Care Nursing, State Level Workshop

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Abstract

A State Level Workshop proceeding on "Pediatric Critical Nursing" held on 22nd May 2019 for the nurses working in different pediatric critical unit at Dehradun City, Uttarakhand India. Pediatric Critical care nursing is an integral part of nursing education and nursing practices among student nurses as well as the nurses practicing in different SNCU's, NICU, PICU's.

The workshop focused on CPR in children and adolescents, Identification of sick child, General care of PICU patient, (Oral, Eye, Skin, Hand hygiene, fast hugs), Feeding in the PICU - Enteral and parenteral, fluid electrolyte, drug dilution, Infection control and standard precaution care bundles, Assisting in procedures, Equipment in the PICU: An overview, Care of invasive lines and catheters.

This one-day workshop was specifically designed for nurses working with critically sick children. The purpose is to develop an insight into various advancement in pediatric critical care among nurses.

The objective of the workshop is at the end of workshop participants will be able to strengthen knowledge and skills in recognition and timely management of sick children, Develop insight among nurses about the care of critically sick children, Demonstrate and understand the common pediatric emergencies and its management, Identify the drug and equipment used in critical care and Develop ability in identification and uses of drugs and equipment need in critical area.

Keywords: State Level Workshop; Pediatric Critical Care; Nursing; India

Abbreviations

PICU: Pediatric Intensive Care Unit; SNCU: Small Neonatal Care Unit; NICU: Neonatal Intensive Care Unit; CPR: Cardiopulmonary Resuscitation

Introduction

India is expending large amount of money for training, and the training is required to keep our self-updated with the current developments in our specialty areas. With an overview of the workshop I would like to say that the pediatric critical care nursing is an integral part of learning in the subject "Pediatric Nursing". The topic is important for nurses doing different Courses and foremost important for the nurses currently practicing in Pediatric critical care unit. In India, we do not have scarcity instruments and infrastructure but we certainly have inadequate knowledge, practice, skills and attitude of health workers this leads further development of complications like high mortalities in infants and neonate.

Dear friends, I would like to focus your attention on 7 important points, where every single nurse whether she works in Emergency Room, I.C.U. or any of pediatric Critical unit need to pay attention.

1. Preparation. (Tray, Beds, Unit)
 - Through Knowledge of preparing procedure tray.
 - Trays of invasive noninvasive procedures.
 - Easily Accessible.
2. Anticipation. (Identifying severity of illness to counteract situation)
 - It comes from Skills and practice you acquired during student period or period of experience.
 - As early as possible you need to anticipate the problem and quick decision need to make to attempt problem.
3. Know what to do.
 - It requires knowledge and Practice and accuracy of work.
4. In what order to do.
 - Again, It requires your cognitive skills.
5. Be able to work quickly in coordination.
 - Needs physically, mentally fit to work fast. (need to become fast).
6. Record and Documentation.
 - For legal value and importance of your work.
7. Attitude.
 - It is not in list but, most important, if your attitude is failing, everything is failed.

As it all works for Pediatric group so, do not do any vigorous activity but be gentle, maintain self-hygiene and provide warmth especially in infants and neonates.

Recently, I attended the workshop in AIIMS New Delhi on “Quality Improvement in preterm babies” and I would like to share message with you all that termed as “STEEEP” [1]:

- S - Safety award to patient. (Should calm with pt.)
- T - Timeliness of care and treatment. (without delay)
- E - Effective care (E.g. Early breast feeding is essential after delivery)
- E - Efficiency of care. (Situational and Environmental Awareness)
- E - Equity of care. (No Discrimination in care)
- P - Patient Centering. (Trends of Non touch therapy).

Materials and Methods

The workshop sessions conducted on the following headings.

CPR in children and adolescents

This session was conducted by Dr. Neeraj Gupta, intensivist, Sir Gangaram Hospital Delhi. He focused on importance of situational awareness on CPR, if timely anticipated the cardiac arrest the mortality will be prevented. The effective team work can make difference. The CPR component contain Basic responsibilities of the nurses in CPR, Importance of Oxygen, IV access and monitor, Number of nurses who must participate in a code with named (Airway nurse, Compression nurse, Medication and monitor nurse, Documentation nurse) and special considerations in CPR [2,3].

Identification of sick child

This session was conducted by Dr. Anil Sachdev, Head, PICU SGRH Delhi. He put audience attention on Assessment of sick child is an important part of handling sick children and improving outcomes is a recognition of sick child at the earliest possible. Early identification

requires astute observation and physical examination. Nurses should get every attempt to get well versed with basic physical examination to pick important signs which indicate imminent danger. The lecture focused on Initial impression, Evaluation, Identification of intervene sequence Further evaluation, Primary assessment, secondary assessment includes systematic evaluation, Diagnostic tests and Determination [4].

General care of PICU patient, (Oral, Eye, Skin, Hand hygiene, fast hugs):

This session was conducted by Dr. BP Kalra, Professor, HIMS, SRHU, Dehradun. He focused on A PICU nurse plays a crucial role in implementation of quality critical care to children. Nurses are the most directly involved in delivering health care to critical ill child. Standard of nursing care reflect upon the overall quality of PICU. General care in PICU contains Care of the eyes, Care of the oral cavity, Care of the back, Bowel/Bladder care, Care of the pressure point, care of the lines. PICU nurses can play the effective role in handling of emergencies, Health teaching. She/he can familiar with Monitor, Ventilators and Emergency drugs. She/he also can fill the role of intensivist, she/he support families and make the aware them ethical issues. Sir also focused on FAST HUG that is Feeding, Analgia, Thromboembolic prophylaxis, Head end elevation, Ulcer prophylaxis, Glucose control [5].

Feeding in the PICU - Enteral and parenteral

This session was conducted by Dr. Sanober Vasim, Professor, HIMS, SRHU, Dehradun, she put attention of participant on reasons of protein energy malnutrition in PICU, Indications for Nutrition Support in the PICU (Hypermetabolic states, Post-surgical patient, cardio-respiratory illness, Gastrointestinal disease and dysfunction, Neurological, muscular disease) Quick Nutritional assessment is indicated in all children, Laboratory parameters, When should nutrition support be started in the PICU, Modes of nutrition repletion (Enteral parenteral nutrition), tube feeding routes delivery, Continuous feeding, intermittent feeding, Enteral nutrition complication like (Medical, GI, Metabolic, Complication of overfeeding) Common myths, Nasogastric tube feeding, insertion and removal, Feeding plan, Unusual reporting, TPN and its types, contents of TPN, Calculation of TPN, Peripheral vs. Central versus access, Nutrition in special circumstances (Nutrition in liver failure, Nutrition in ARF, Nutrition in pancreatitis and immunonutrition [6].

Fluid electrolyte and drug dilution

This session was conducted by Dr. Neeraj Gupta, Intensivist, SGRH Delhi. He focused the attention of the participants on preparation of intravenous fluid in different forms as per requirement. Nurses role in intravenous fluid administration. Dosage during dehydration, dysentery and fluid calculation, Drug doses in PICU for emergency and Drug for critically ill children, Drug compatibility chart what to observe etc [7].

Infection control and standard precaution care bundles

This session was conducted by Ms. Anumol TP, PICU Nurse, SGRH Delhi. She put stress on Hospital acquired infections or nosocomial infections, Burden of illness in PICU, Risk factors for HAI (Hospital acquired infections) in PICU, Chain of infection, Route of transmission, Infection control practices, Breaking the chain of infections, Standard precautions/Routine practices, Hand hygiene, personal protective equipment, Newer development in prevention of HAI, Intervention bindles, Blood stream infections, CRBSI Bundles, Ventilator associated pneumonia, mechanism of VAP, Urinary tract infection and Surgical site infection bundles [8].

Assisting in invasive and noninvasive procedures

This session was conducted by Dr. BP Kalra, Professor, HIMS, SRHU, Dehradun, He focused on General point to note before procedure, common procedure trolley, implementation and evaluation of procedures, Procedure discussed are insertion of arterial line, Central line insertion, Intra-abdominal pressure monitoring, Intercostal drainage (ICD), Chest tube insertion, Intracranial pressure monitoring, peritoneal dialysis, Child assessment and management, as well as pre, intra and post procedural care of Nurse [9,10].

Equipment in the PICU: An overview

This session was conducted by Dr. Anil Sachdev, Head, PICU SGRH, He put the attention of participants on monitoring equipment like ECG, CPAP, Bubble CPAP, Multipara monitors, BLS equipment's, Equipment's of ACLS, setting alarm limits, the entire equipment of PICU kept on different work stations and it is divided in 4 different stations. Each station equipped with articles and Demonstrators who demonstrated the use of each article with different scenario and also clearing the doubts of participants [11].

Care of invasive lines and catheters

This session was conducted by Dr. Sanobar Vasim, Professor; HIMS, SRHU, Dehradun, she spoken on Tips and tricks of Central venous line, Arterial line, peripheral line, Urinary catheter, infusion ports, inspection and troubleshooting, General safety measures, Cleaning and dressing protocols and how one can empower nurses to care of invasive lines and catheters [12].

Results

The feedback of the workshop was 88% participants were agreed with overall workshop proceedings was good and also need to repeat with time bonding to refresh the knowledge of nurses working in different health establishments. 12% participants were responses with average management of workshop.

Discussion and Conclusion

The workshop was very useful for the participants, as the feedback given by the different head of the groups was communicated at the end. The time was permitted to the head of the participants. As they said that "This was the first time they attended such workshop which was interesting from morning to evening, every lecture they enjoyed and demonstration was too worthful." Few requested to organize such workshop at least twice a year to refresh knowledge and acknowledge newer knowledge and techniques. Workshop was concluded with appreciation of efforts taken by the faculty of child health nursing department HCN. External faculty admire the workshop. Programme end up with group photos. The strong and weak point are identified by organizing chairperson and co-chairperson and discussed in evaluation meeting to make faculty more confident in organizing future workshops.

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Conflict of Interest

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