ROLE OF NURSES IN CLINICAL RESEARCH.

Nurses have a significant contribution to clinical research in a number of ways and to a great extent clinical research would not be effective without them. I have participated in a number of clinical and behavioral research studies as a study nurse heading the nursing care team at Acute Care Unit (ACU) at Mulago National Referral Hospital. For example; Central Nervous System Malaria study, clinical trials of Acute versus delayed Iron therapy: effect on iron status, anemia and cognition study and finally the on going study of Acute versus Delayed iron therapy: effect on red cell incorporation in severe malaria.

The Cerebral Malaria study is carried out to describe the pathogenesis of cognitive or neurological deficits in central nervous system malaria. The study deals with children between 18 months and 12 years referred to Mulago Hospital in Uganda. The procedures include: Identifying the study participants from triage at the Acute Care Unit, working with the Medical Officers (MOs) to carry out the emergency nursing care of the patient. After the child has stabilized, gathering information from the caregiver to fill the case report forms. Once the child meets the study's inclusion criteria, we consent the caregiver and conduct all the necessary study specific procedures. When they are discharged we follow them up for 2 years in the two years with 4 hospital and 3 home visit follow ups with necessary medical care given incase the child falls sick.

Acute versus delayed Iron therapy: effect on iron status, anemia and cognition, we enroll children who have Cerebral Malaria, Severe Malaria Anemia and Community Controls between 18 months to 59 months whom we give Ferrous sulphate therapy for children who are found to be iron deficient. After testing their ZPP (Zinc protoporphyrin) participants with ZPP greater than 80 are randomized to either the Immediate or delayed arm for iron therapy consumption.

The Acute versus delayed therapy: effect on Red Cell Iron Incorporation in Severe Malaria study recruits children with the history of fevers and a positive blood smear. Children recruited are from the age of 6 months to 59 months. If their ZPP is >80 the child is randomized to receive Iron Therapy. These children are followed up for 56 days.

Nurses involved in clinical research like those listed above contribute to research in the following ways;

Identification of participants
The nurses help in identifying the sick children that meet inclusion criteria of participants required in the study from the triage.

Emergency care
In these different studies children come in very sick especially in the Central Nervous System study, some of these children are even in coma as per the glaucoma and Blantyre scale. So the nurses first give these children emergency care before they consent to be recruit in the study.

Informed consent
The study nurses talk to parents or caregiver to give an opportunity to the child to participate in the study. The nurses are conversant with the protocol and clearly explain the whole study in brief to the caregivers so as to make informed consent to participate in the study. Then the handwritten consent is administered with proper explanation and signature from the study nurse on behalf of the Principal investigator.

Sample collection
Most of these studies require sample collection example the Acute versus delayed Iron therapy; effect on iron status, anemia and cognition requires the blood draws, urine and stool collection. These are collected by the study nurses and taken to respective laboratories for screening, analysis and storage.

Vital observation, monitoring and report
Some of the study participants are admitted since they are in a critical condition and are observed in the PICU and require intensive nursing care, vital observation and treatment regularly. Its actually research nurses who are on-duty especially night when most doctors are on-call do this. The study nurses carry out all the procedures and do all the observations and write in the patient files for proper documentation. The study nurses are responsible for preparing the reports and handing in the reports to the next nurse taking over the participant.

Health Education and sensitization
Mothers in these studies I have interacted with don’t have good knowledge about the illness and how to avoid them and proper nutrition example feeding children with less iron foods rich in Iron nutrient.

Accountability and follow up
The study nurses work out on ordering, receiving, recording and storing the clinical supplies for the patients. The study nurse help also to take home directions for the patient’s home and take their contacts for proper follow up.

Critical support is needed to enable greater involvement for nurses in clinical research in the following ways:

Nurses should be offered seminars for training to enable know more about their particular studies, responsibilities clinical trials and other areas where they can be of greater help.
When studies are being designed it is good to let nurses be involved in the study since this helps to give a bigger picture of how their involvement affects the study.

Study nurses should be given a better pay or allowances to help them boost on their work since most the pay here in Uganda is low. This will motivate them as well as support their services.

There is need to increase on the number of research nurses recruited for the studies to avoid on the work load since sometimes there are very many different children especially in rainy seasons.

There should be appropriate working conditions for the study example a private rest room, protective gears for safety especially during the era of infectious diseases and contagious diseases like HIV, TB, etc.

There is need for continuous professional development to help on improvement of skills and knowledge. Given opportunities like this one to make research nurses better. Nurses should be encouraged to work as team such that the old clinical researches to help the new ones to learn how to work in clinical research.

There is need for more resource links like web sites, libraries for nurses to study more and improve on their carrier with scholarship and training materials.