

Critical Care Teaching Resources for the Developing World

British Association of Critical Care Nurses
31st Annual Conference, Glasgow



Objectives

- Outline a project to support the development of educational resources for critical care nurses in Zambia. This will focus on two areas:
 - Educational Resource
 - Professional Network
- Explore the theme of communicating and caring in an e-ICU from a developing world perspective



Why is education important?

Education is the key to breaking poverty

‘Next in importance to freedom and justice is popular education, without which neither freedom nor justice can be permanently maintained’

Garfield JA. (1880)

Zambia

- National language: English
- 72 Regional dialects
- Literacy rate: 61.4% (UNICEF, 2013)



Pedagogies of the Oppressed

- Poor are suppressed.
- Depending on type of education used ensures rigid conformity and prevents them from critical awareness. This may be through rigid authoritarian teacher – pupil models.
- This allows economic, social and political oppression
- ‘Right kind of education’ can allow students to investigate, gain self-awareness and move them from passive objects responding to a situation which they have no control over.

Critical Care Nurse Education

- Advanced Diploma in Critical Care Nursing commenced in 2012
- Key issues:
 - 1 critical care nurse educator for the entire country
 - Curriculum unrealistic to practice
 - Limited resources

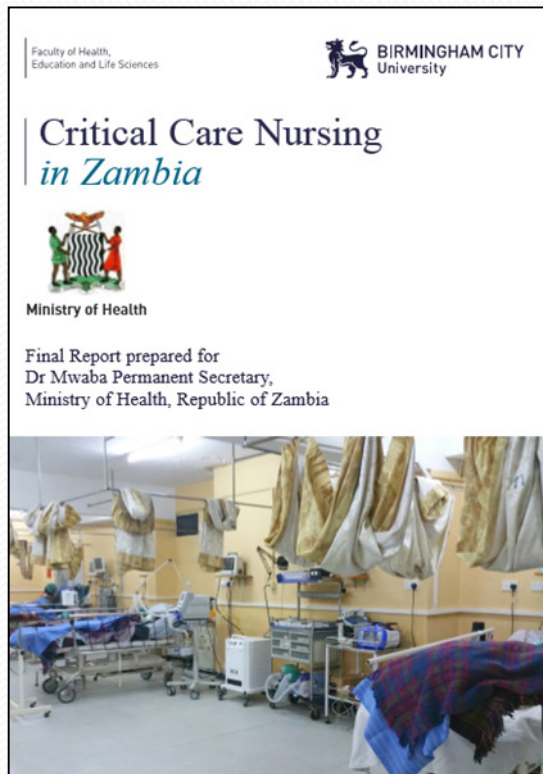




Why are nurses important?

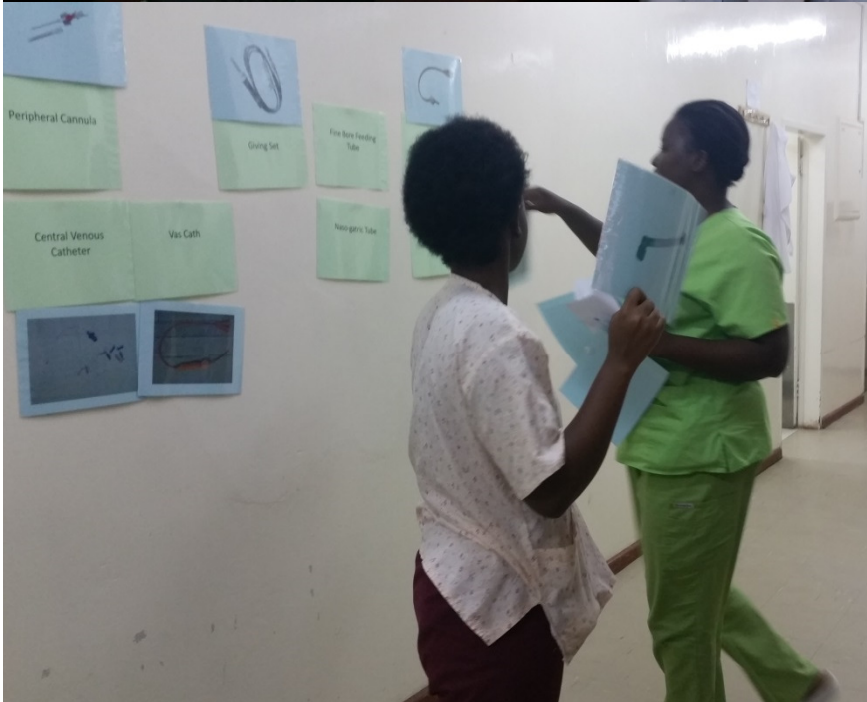
- Largest part of the Registered Healthcare workforce
- Spend the most time with the patient, so are critical to the delivery of safe services.
- Limited Physician Anaesthetists and Clinical Officers (Kinneer et al, 2013).

Professional Isolation



Recommendations:

- National Network
- National Co-ordinator
- National Standards
- Development of BSc Programme
- Clinical Officer & Anaesthetic programmes to include critical care modules



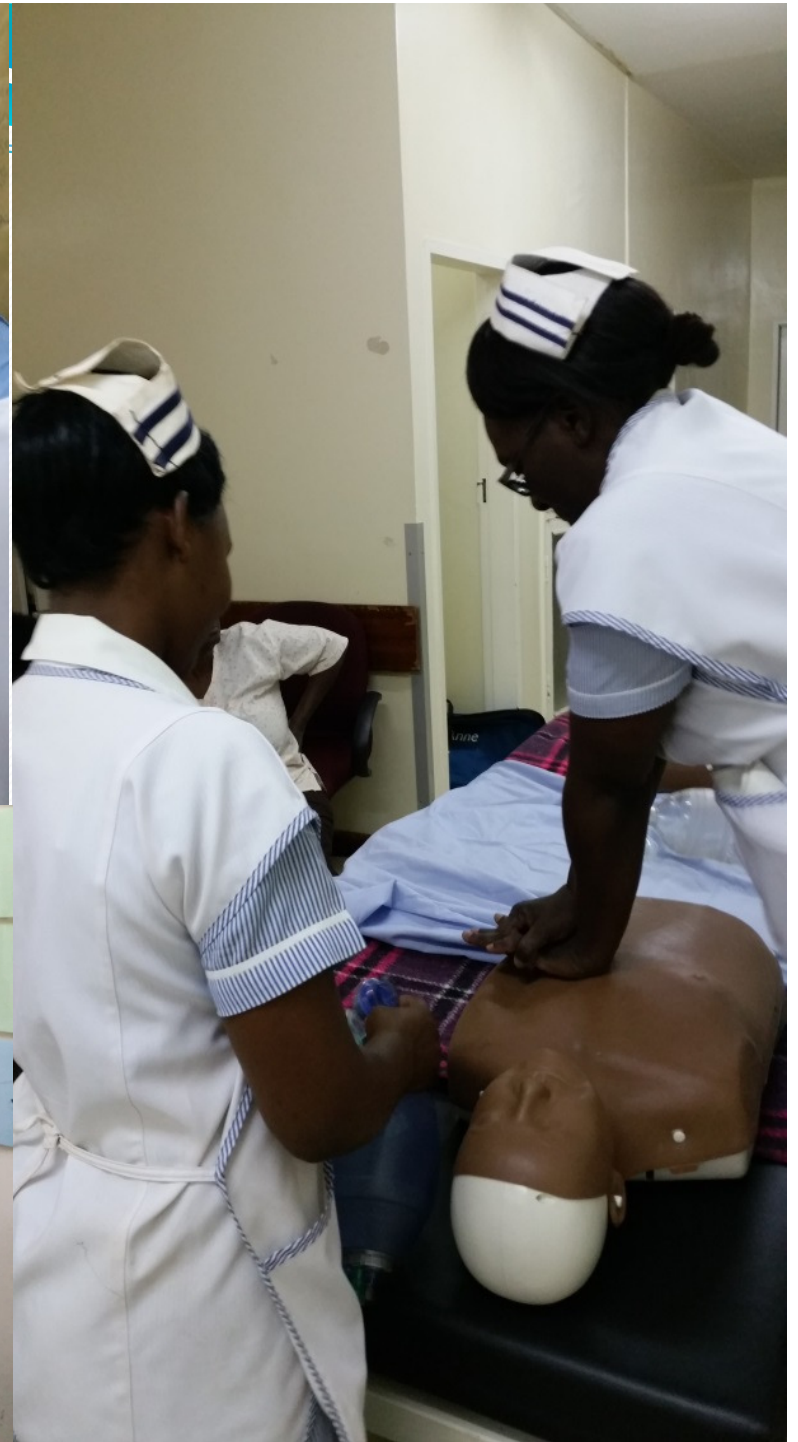
Practical Skills



Continued support from UK



The number of internet users in Africa almost doubled in the past four years (UN, 2015)



Appropriate Educational Resources



Continuous pulse oximetry (SpO2) (continued)

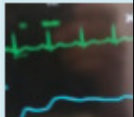
You should look at the trace/waveform to ensure the signal is strong.



Pulse oximetry probe (light emitting diodes and light detectors)



Good pulse oximetry



Poor pulse oximetry

Arterial Blood Gases

Arterial Blood Gases via an arterial line. N

- pH
- PaO₂
- PaCO₂
- Bicarb
- Base E

Securing and Caring for an Endotracheal Tube

There are various methods to securing an endotracheal tube. Regardless of method, this is a two person technique. One nurse holds the airway, whilst the second prepares the ties.



If changing ETT prior to releasing the dirty ties, check the position of the ETT at lips/teeth

Nursing Care of the Critically Ill Patient

Following your assessment you will now be in a position to make a plan of care for your patient. Each plan should be individualised and take account of the patients current needs and the medical plan.

General Care of the Critically Ill Patient

Pressure Area Care:

Ensure you check and document the state of the patient's pressure areas every shift. Include the corners of the mouth as pressure sores may be caused by the ETT ties, top of the ears where oxygen mask straps may have caused rubbing or pressure damage. To prevent pressure damage re-position the patient regularly depending on your assessment.

Any prolonged amount of bed-rest and immobility will result in muscle wastage. To counter this early input from a physiotherapist if available will be beneficial, as well as ensuring the patient is nursing in a semi-recumbent position with a head elevation of 30-45°, frequent position changes, passive limb movements and early mobilisation.

When re-positioning patients ensure limbs are not trapped and they are appropriately supported with pillows and blankets.

Eye Care:

As many critically ill patients will have altered levels of consciousness this may prevent them being able to protect their eyes, increasing the risk of injury such as corneal abrasion, dehydration, perforation and infection.

It is important to assess and document the patient's eyes at least once a shift and ensure an appropriate nursing plan is in place.

Assessment should include:

- All unconscious patients
- Observe for encrustation
- Assess the lid position:
 - Lids closed
 - Conjunctiva only exposed (white of eye only visible)
 - Cornea exposed (white and pupil or iris visible) (High risk!)
- Observe for bacterial keratitis:
 - White or yellow spots on the surface of the cornea (Urgent medical review required)
- Observe for conjunctivitis:
 - Conjunctival discharge and redness

Nursing care may include:

- Ensure eyelids are closed at the end of assessment
- Taping of the eyelids if required
- Cleaning of the eyes with sterile water or saline
- If available use hypromellose 0.3% to each eye 1-4 hourly
- Any concerns/changes seek medical advice with the aim of an ophthalmologist review

Emergency Airway Management

A compromised airway is a medical emergency!
Call for help immediately!

Vomiting

If the patient vomits use suction is available use a rigid with the removal of fluid and/or turn them onto their side the fluid to drain out.



Rigid s (not to remain)

Opening the airway



Head, tilt chin lift



Jaw thrust - used if patient has a suspected or confirmed c-spine injury


Critical Care Network

The screenshot shows a Facebook group page for the 'Critical Care Nursing Network'. The group is titled 'Zambian Network of Critical Care Nurses' and is a closed group with 81 members. The cover photo features a map of Zambia with a heart rate line overlaid, and the text 'Critical Care Nursing Network' in a blue arc. The page includes a navigation bar with 'Chris', 'Home', and 'Find Friends'. Below the cover photo, there are tabs for 'Discussion', 'Members', 'Events', 'Photos', and 'Files'. A search bar is located on the right side of the group page. The main content area shows a post by Chris Carter dated 30 July at 15:29, discussing 'WORLD SEPSIS DAY' on 13 Sep 16. The post asks if members have plans to raise the profile of recognition and treatment of sepsis. It has 6 likes and is seen by 28 people. Two comments are visible: one from Christine Chishimba and another from Mthana Thewo, both supporting the idea. The right sidebar contains sections for 'ADD MEMBERS', 'MEMBERS' (with 81 members shown), 'INVITED' (with two members listed), 'DESCRIPTION', 'TAGS' (Critical care nursing - Local countries), and 'CREATE NEW GROUPS'. A 'Chat' button is highlighted in blue over the 'INVITED' section.

Zambian Network of Critical Care Nurses

Kalumbu Walubita Chimuka
15 July at 10:15

Good morning RCCNs. Recently our hospital procured this type of oxygen gauges for ICU. We have a challenge as we are unable to connect them to either the Newport or Shangrila vents. Before I conclude that not all gauges are compatible, are any of you guys using such and how are using them?



Like Comment

1 Seen by 29

View 3 more comments

Peter Chipillip Just below that Green nob
Like Reply · 18 July at 19:38

Tiina Chimya Yes Kalumbu, he told to try Chipillip way and see if its goin to work out
Like Reply · 19 July at 00:13

Write a comment...

Chris Carter uploaded a file

Zambian Network of Critical Care Nurses

7 Seen by 28


View 7 more comments

Kalumbu Walubita Chimuka Morning Chris and Philip, I need more information on the SOFA scoring so that its introduced to our unit too.
Like Reply · 31 July at 07:14

Kalumbu Walubita Chimuka Sorry not Philip but Peter
Like Reply · 31 July at 07:16

Write a comment...

Tiina Chimya
15 July at 09:01



Like Comment

1 Seen by 28

Mthana Thewo Thanks a lot I will show them.
Like Reply · 15 July at 13:37

Write a comment...

World Sepsis Day 2016



Peter Chipiliip
15 hrs

This was the say wé had à presentation for our hospital....sepsis awareness....

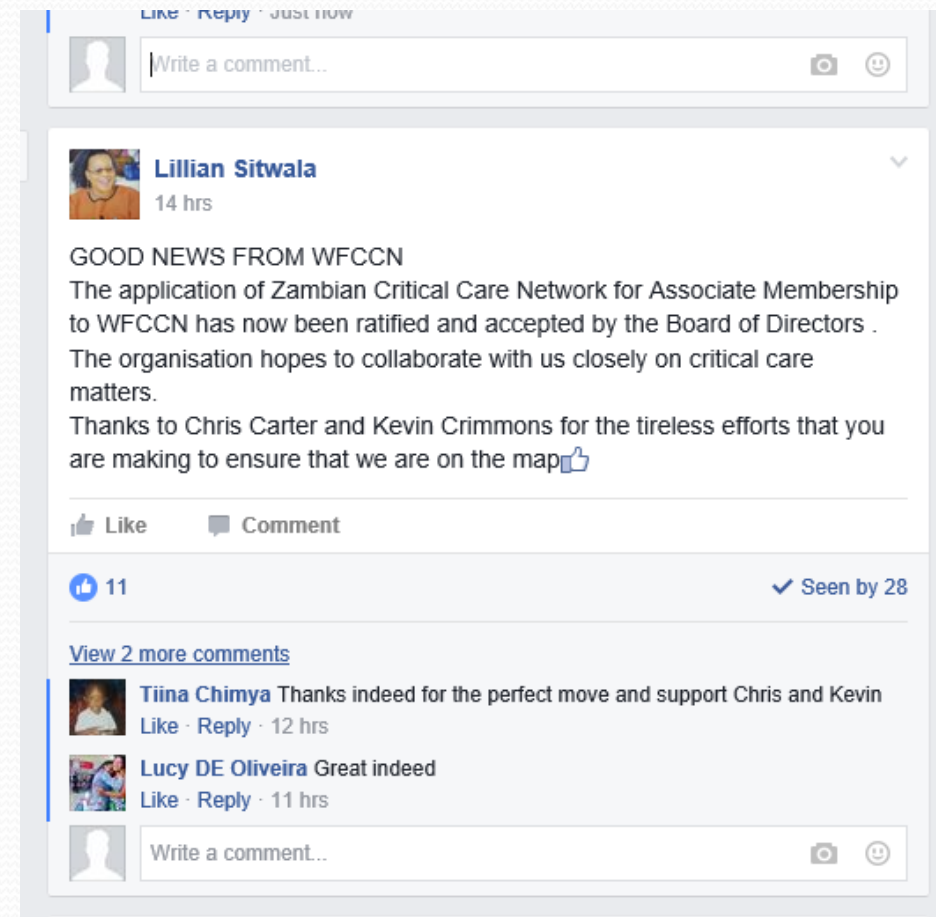


Like Comment



Achievements

- Engagement and ownership from local nurses
- Joint publication in WfCCN journal Connect





BSc Development

- Understand the context in which they practice:
 - Convulsing disorders of pregnancy
 - Black Water Fever
 - Organophosphate poisoning
- ‘Advanced’ practice
- Introducing critical thinking and evidence based care?

Capacity Building

2016

- Interviews for 2 nurses to complete BSc in UK

2017

- Educational visit Zambian Nurses
- Zambian Nurses commence BSc Course & Lecturer Development
- Explore themes to include

2018

- Development of BSc programme
- University of Zambia accreditation

Strengthening the network

- Provide a virtual platform which supports ‘expert advice and training’ (BACCN, 2016)
- Inaugural network meeting & educational event
- Develop links with WfCCN:
 - 2012, a survey of national critical care nursing organisations and activities identified only two African countries were represented
 - 2016, full country members in Cameroon, Ghana, Nigeria and South Africa, with links in Rwanda and Ghana.

Williams et al. (2012). Critical care nursing organizations and activities: a third worldwide review. International Nursing Review. 59. 73-80

Communication & Caring

'We are not sure that words can always save lives, but we know that silence can certainly kill'

(James Orbinski, 1999)

