



Nursing the Critically Ill Surgical Patient in the Developing World



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

Scope

- ▶ Provide an introduction to the Lancet Commission on Global Safe Surgery
- ▶ Provide an overview of nursing the critically ill surgical patient in a Low Middle Income Country



Critical Care – Is it appropriate?

- ▶ All hospitals have critically ill patients.
- ▶ Published peer reviewed reports of critical care units being established in Malawi, Uganda, Democratic Republic of Congo and Zambia units from 1987 onwards.



Zambia

- ▶ Life expectancy is 57 years for males and 60 for females
- ▶ 38 women die every month during pregnancy and childbirth
- ▶ 1 in 8 children die before they are 5 years old
- ▶ 7,461 nurses and 2,471 midwives on the Ministry of Health payroll



Access to healthcare

- ▶ 60.5% of the population lives in rural areas
- ▶ Often present late stages of costs due:
 - ▶ Distance to access to healthcare
 - ▶ Pay for treatment
- ▶ Elective versus emergency surgical services
 - ▶ E.g. maternal versus women's health



Ward Based Care

- ▶ Nurse patient ratios as low as 1 – 40 / 60 patients
- ▶ No oxygen supply
- ▶ Limited monitoring including pulse oximetry





UTH Admissions 2014

793 admissions

218 (27%) trauma

247 (31%) post op





Critical Care Nursing *in Zambia*



Ministry of Health

Final Report prepared for
Dr Mwaba Permanent Secretary,
Ministry of Health, Republic of Zambia



Hospital	UTH - MICU										Levy						Mb			
Hosp Bed State	1800										188						23			
ICU bed state	10										6						3			
Types of Pts	Adult / Paeds										Adults / Paeds						Adult /			
No. of staff	42										9						5			
No. of CCN	15										1						2			
	1	2	3	4	5	6	7	8	9	10	Sp	1	2	3	4	5	6	Sp	1	2
Ventilator	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Monitor	Green	Green	Green	Green	Green	Green	Red	Red	Red	Red	Red	Green	Green	Green	Red	Red	Red	Red	Green	Green
Suction	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green
Infusion pump	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red	Red	Red	Red	Green	Green	Green	Green	Green	Green	Green
Syringe pump	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	0	Green	Green	Green	Green	Green	Green	0	Green
O2 Concentrator	0	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green
Oxygen Supply	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green
Defibrillator	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	AED	Green	Green	Green	Green	Green	Green	Red	Green
Emer Suc	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	0	Green	Green	Green	Green	Green	Green	Green	Green
Portable Pulse Ox	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	0	Green	Green	Green	Green	Green	Green	0	Green
Glucometer	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green
Portable X-Ray	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green
ABG	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Red	Green
Labs	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Running Water	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green
Electricity	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green

An estimated 35-50% of medical equipment is out of service (Tropical Health & Education Trust, 2016)



Improvisation





- ▶ Pain Management
- ▶ Sedation
- ▶ Enteral feeding
- ▶ Wound care
- ▶ IV access



Hospital Acquired Infection

- ▶ Anti-microbial resistance due to over use of antibiotics
- ▶ Lack of running water, soap and disposable hand towels
- ▶ No centralised sterilisation services
- ▶ Reuse single use items



Sepsis

Intensive Care Med
DOI 10.1007/s00134-016-4415-3

WHAT'S NEW IN INTENSIVE CARE



Recommendations for infection management in patients with sepsis and septic shock in resource-limited settings

C. Louise Thwaites^{1,2*}, Ganbold Lundeg³, Arjen M. Dondorp^{4,5} and an expert consensus recommendations group of the European Society of Intensive Care Medicine (ESICM) and the Mahidol-Oxford Research Unit (MORU) in Bangkok, Thailand

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Introduction

Studies indicate that sepsis and septic shock in resource-limited settings are at least as common as in resource-rich settings. The surviving sepsis campaign (SSC) guidelines have been widely adopted throughout the world, but in resource-limited settings are often unfeasible [1]. The guidelines are based almost exclusively on evidence from resource-rich settings and are not necessarily applicable elsewhere due to differences in etiology and diagnostic or treatment capacity. An international team of physicians with extensive practical experience in resource-limited intensive care units (ICUs) identified key questions concerning the SSC's infection management

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DOI 10.1007/s00134-015-4070-0

WHAT'S NEW IN INTENSIVE CARE



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Ventilatory support of patients with sepsis or septic shock in resource-limited settings

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© Springer-Verlag Berlin Heidelberg and ESICM 2015
Group members of the 'Sepsis in Resource-limited Settings' group

Introduction

Research evidence for ventilatory support recommendations in sepsis and septic shock management has been mainly gathered from investigations in resource-rich settings. Often, it is not practical to directly apply this evidence to resource-limited settings, where the availability of equipment, laboratory support and skilled staff is often limited. We report of pragmatic recommendations for ventilatory support in sepsis and septic shock management in resource-limited settings, built upon two previous sets of guidelines for sepsis management, the most recent Surviving Sepsis Campaign guidelines [1] and the

Baelani et al. *Critical Care* 2011, **15**:R10
<http://ccforum.com/content/15/1/R10>



RESEARCH

Open Access

Availability of critical care resources to treat patients with severe sepsis or septic shock in Africa: a self-reported, continent-wide survey of anaesthesia providers

Inipavudu Baelani^{1†}, Stefan Jochberger^{2†}, Thomas Laimer³, Dave Otieno⁴, Jane Kabutu⁵, Iain Wilson⁶, Tim Baker⁷, Martin W. Dünsen^{8*}

Abstract

Introduction: It is unknown whether resources necessary to implement the Surviving Sepsis Campaign guidelines and sepsis bundles are available in Africa. This self-reported, continent-wide survey compared the availability of these resources between African and high-income countries, and between two African regions (Sub-Saharan Africa vs. South Africa, Mauritius and the Northern African countries).

Methods: The study was conducted as an anonymous questionnaire-based, cross-sectional survey among anaesthesia providers attending a transcontinental congress. Based on the respondents' country of practice, returned questionnaires were grouped into African and high-income countries. The questionnaire contained 74 items and evaluated all material resources required to implement the most recent Surviving Sepsis Campaign guidelines. Group comparisons were performed with the Chi², Fisher's Exact or Mann-Whitney *U* test, as appropriate.

Results: The overall response rate was 74.3% (318/428). Three-hundred-seventy questionnaires were analysed (African countries, *n* = 263; high-income countries, *n* = 44). Respondents from African hospitals were less likely to have an

Summary

- ▶ Insight into critical care and surgical care in the developing world.
- ▶ Critical care services will continue to evolve in response to patient need, resource available and global agendas.
- ▶ Whilst surgical and anaesthetic programmes have attracted significant funding, perhaps it is time to widen the scope and support other areas of the surgical patient pathway and highlight the important role of nurses.



Still to come...

- ▶ **BACCN Conference**

- ▶ Critical Care Teaching Resources for the Developing World
- ▶ 20 Sep 16

- ▶ **Royal College of Nursing, Defence Nursing Forum
Workshop**

- ▶ Advances in Trauma and Surgical Care in Resource Limited Environments
- ▶ 7 Nov 16
- ▶ £48



