Anesthesia & Global Surgery

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There are now more than 135 societies in WFSA covering more than 150 countries.
Vision: Universal Access to Safe Anesthesia

Mission: To Unite Anesthesiologists around the World to Improve Patient Care & Access to Safe Anesthesia & Perioperative Medicine

How We Work: with national, regional & specialty anesthesiology societies; with WHO, Governments, NGOs, academic institutions, patient groups, hospitals, and industry

Safe anaesthesia and perioperative care are essential for safe surgery
We welcome partnerships aimed at strengthening health systems and achieving universal health coverage.
Our advocacy is guided by three pillars: scaling-up of the anaesthesia workforce, achieving Universal Health Coverage (UHC), and ensuring safe anaesthesia for all.

https://www.wfsahq.org/our-work/advocacy
The relationship between physician anesthesia provider (PAP) density and maternal mortality ratio (MMR) for 168 countries

Quintile 1: 0.1–0.62 PAPs per 100,000; quintile 2: 0.7–2.44; quintile 3: 2.45–6.76; quintile 4: 7.18–15.06; quintile 5: 15.17–54.22

Justine I Davies et al. BMJ Glob Health 2018;3:e001005
Workforce

Numbers of People

 Appropriately Educated And Regulated
SAFE®
Safer Anaesthesia From Education

>30 countries since launching in 2011
3,500 anaesthesia providers trained by the end of 2018!

380 Tutorials
(English, Chinese, French, Portuguese, Spanish)
32 editions of Update in Anaesthesia

Update in Anaesthesia
SPECIAL EDITION
Pediatric Anaesthesia and Critical Care

Anaesthesia Tutorial of the week
Anaesthesia mortality by decade & country

Human Development Index status

Investment in Safety Standards, Training & Equipment

Anaesthetic Sole Mortality

Deaths per million Anesthetics


High HDI  Low HDI

P<0.00001

Anaesthetic Contributory Mortality

Deaths per million Anesthetics


High HDI  Low HDI

P<0.00001

Let me Introduce you to:

https://www.wfsahq.org/our-work/safety-quality
Standards are Categorized by Facility Level and/or case type

<table>
<thead>
<tr>
<th>Intraoperative</th>
<th>HIGHLY RECOMMENDED</th>
<th>RECOMMENDED</th>
<th>SUGGESTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical observation by an appropriately trained anesthesia provider:</td>
<td>Inspired oxygen concentration monitor</td>
<td>Continuous measurement of inspired and expired gas volumes</td>
<td></td>
</tr>
<tr>
<td>• Pulse rate and quality</td>
<td>Device to prevent delivery of a hypoxic gas mixture</td>
<td>Continuous measurement of inspired and expired inhalational anesthetic concentrations</td>
<td></td>
</tr>
<tr>
<td>• Tissue oxygenation and perfusion</td>
<td>Disconnect alarm (when mechanical ventilator used)</td>
<td>Continuous measurement and display of arterial blood pressure (in appropriate cases)</td>
<td></td>
</tr>
<tr>
<td>• Respiratory rate and quality</td>
<td>Continuous use of an electrocardiogram</td>
<td>Continuous electronic temperature monitoring (in appropriate cases)</td>
<td></td>
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<tr>
<td>• Breathing system bag movement</td>
<td>Intermittent temperature monitoring</td>
<td>Urine output monitoring (in appropriate cases)</td>
<td></td>
</tr>
<tr>
<td>• Breath sounds</td>
<td>Peripheral neuromuscular transmission monitor (when muscle relaxants used)</td>
<td>Processed EEG in appropriate cases</td>
<td></td>
</tr>
<tr>
<td>• Heart sounds (eg, use of precordial or esophageal stethoscope as appropriate)</td>
<td>Continuous waveform capnography for patients undergoing general anesthesia and deep sedation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audible signals and alarms at all times</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuous use of pulse oximetry</td>
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<tr>
<td>Intermittent noninvasive blood pressure monitoring</td>
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<tr>
<td>Carbon dioxide detector for patients undergoing intubation</td>
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<td></td>
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</tbody>
</table>

Gelb AW. Canadian J Anesthesia. 2018; 65:698-708
## Equipment

For the following pieces of equipment, please indicate the total number that are present at this facility and are designated for anaesthesia/surgical care in the operating theatres (i.e. the total # for all operating theatres). *Do not include equipment personally owned by providers.*

<table>
<thead>
<tr>
<th>Equipment</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse oximeters</td>
<td>#</td>
</tr>
<tr>
<td>Laryngoscopes</td>
<td>#</td>
</tr>
<tr>
<td>Non-invasive blood pressure monitors</td>
<td>#</td>
</tr>
</tbody>
</table>

How often are the following equipment available and in functioning* condition when needed for anaesthesia or surgical care in the operating theatres? (*Functioning is defined as in working condition and can be used for patient care*)

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Always (100%)</th>
<th>Almost always (76-99%)</th>
<th>Often (51-75%)</th>
<th>Sometimes (26-50%)</th>
<th>Rarely (1-25%)</th>
<th>Never (0%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult self-inflating breathing bag/mask</td>
<td></td>
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<tr>
<td>Paediatric self-inflating breathing bag/mask</td>
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<tr>
<td>Manual or electric suction pump</td>
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<tr>
<td>Stethoscope</td>
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<tr>
<td>Thermometer</td>
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<td></td>
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<tr>
<td>Pulse oximeter</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult pulse oximeter probe</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paediatric pulse oximeter probe</td>
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</tbody>
</table>

v1.1 December 2017

Please direct questions or comments to: globalanesthesia@ucsf.edu
Anaesthesia Facility Assessment Tool

Based on the recently updated 2018 WHO-WFSA International Standards for a Safe Practice of Anaesthesia, the WFSA has developed the Anaesthesia Facility Assessment Tool (AFAT) in order to help regional and national anaesthesia and health care leadership to gather data about anaesthesia workforce, equipment, medicines and practice at the facility level.

The AFAT is part of a shared effort to improve data collection and knowledge management in support of the implementation of World Health Assembly Resolution 68.15 and to ensure that anaesthesia is represented in national health planning and in National Surgical, Obstetric & Anaesthesia Plans (NSOAPs). To learn more about NSOAPs, please click here.

Data Collection and Entry:

Data collection can occur in three potential ways:

1. Data can be collected on paper forms (links to pdfs for printing are below). Once data forms are completed, you can manually enter the data into the WFSA RedCap database. To receive the link for data entry using a computer, please click the green button below. (Requires Internet)
2. Data can be entered directly online (as it is collected) into the WFSA RedCap database online using either a computer or tablet. To receive the link for data entry using a computer, please click the green button below. If you choose to use direct data entry via tablet, please contact comms@wfshaq.org prior to data collection in order to receive tablet setup instructions. (Requires Internet)
3. Data can be collected on paper forms (links below) and entered into your database of choice for analysis and not shared in the WFSA RedCap database.

All data entered online will be stored in a secure RedCap database, jointly maintained by the WFSA and the UCSF Anesthesia Division of Global Health Equity.

Enter data using the electronic survey tool
Click here for link

The survey form can be downloaded as a pdf in the following languages:

- AFAT (English)
- AFAT (Spanish)
- If you would like to work with WFSA to translate into another language please contact comms@wfshaq.org.
What Anesthesiologists want from Surgeons & Ministries of Health

- To acknowledge that for safe surgery a trained, competent and dedicated surgeon (whether physician or not) must be accompanied by an appropriately trained, competent and dedicated anesthesia provider (whether physician or not). Accepting anything less devalues the patients we care for together.

- To encourage, facilitate, and support appropriate training of providers even when this results in short-term provider shortages while training takes place.

- To adhere to, promote and advocate for the International Standards for a Safe Practice of Anaesthesia. These should be *endorsed* and *adopted* at every level of the healthcare system.

To regard Anesthesia as an equal partner with Surgery in promoting safe surgery and not just a stakeholder to consult occasionally.
Steps in the development of NSOAP

MOH COMMITMENT

SITUATIONAL ANALYSIS

SYSTEMATIC LITERATURE REVIEW
BASELINE CAPACITY ASSESSMENTS
STAKEHOLDER ENGAGEMENT

CLINICIANS
Surgeons, Anesthesiologists, Obstetricians, Radiologists, Nurses, Anesthetists, Biomedical Engineers, Midwives, Laboratory Technicians...

CIVIL SOCIETY, NGO and END USER
Professional Associations, Patient Advocacy organizations, Professional Alliances, Community leaders, World Health Organization, Development Communities...

GOVERNMENT
Curative Services, Planning, Human Resources, Preventative Services, Training, Procurement, Pharmacy, Maternal Health, Ministry Of Finance, Ministry Of Education, Ministry Of Infrastructure...

MOH APPROVAL

PARTICIPATORY PRIORITY SETTING

IMPLEMENTATION

COSTING

DRAFTING AND VALIDATION

MONITORING EVALUATION GOVERNANCE STRUCTURES
Thank You

www.wfsahq.org

facebook.com/WFSAorg
twitter.com/WFSAorg
linkedin.com/company/WFSA

Email us and subscribe to our quarterly e-newsletter at: comms@wfsahq.org

Safety Summit April 5th 2019, London
An adequate and well trained workforce is crucial for Patient Safety

The WHO-WFSA International Standards link Standards to Type of Facility and Type of Cases

WHO-WFSA International Standards are the guide to Safe Practice and Thereby the basis of the WFSA Anesthesia Facility Assessment Tool

You need good data to understand what needs fixing

Good data tells you what you don’t know and verifies what you think you know

The tools to guide Anesthetic Safety and get the data are available to you free

www.wfsahq.org/our-work/safety-quality
Highly Recommended i.e. the minimum

Trained Anesthesia Provider Checklist

Oxygen

Continuous pulse oximetry OR & PACU

CO₂ detection (for intubation)

WHO Essential Medicines

Palpation or Display of Pulse

Tissue Perfusion by clinical exam

Non-invasive blood pressure monitoring

Pain Management
DEFINITIONS

Global surgery encompasses anesthesia, all surgical specialties including trauma surgery, general surgery, obstetrics & gynecology, perioperative medicine, critical emergency medicine, pain management and palliative care, rehabilitation, nursing and other health professions involved in the care of the surgical patient.

Global Surgery is All of These Anesthesia involved in all
Mere availability of health workers is not sufficient to translate into effective service coverage:

- equitably distributed
- accessible by the population
- possess the required competency
- are motivated and empowered to deliver quality care that is appropriate and acceptable to the sociocultural expectations of the population
- are adequately supported by the health system
National Surgical Obstetric Anesthesia Planning

Situational analysis and baseline assessment

Stakeholder engagement and priority setting

Drafting and validation

Monitoring and evaluation

Ministry Support

Costing

Implementation

Governance

Improving perioperative outcomes in low-resource countries: It can’t be fixed without data

Thomas G. Weiser, MD, MPH · Emmanuel M. Makasa, MBChB, MPH · Adrian W. Gelb, MBChB