



## AIDE-MEMOIRE

### *Surgical and Emergency Obstetrical Care at First Referral Level*

Well-organized surgical, obstetric, trauma care and anaesthetic services are essential for a district hospital to be an effective community resource. These services should be developed within the framework of the country and district's health care infrastructure.

Without such services, up to 10% of the population will die from injury and 5% of pregnancies will result in maternal death. Unacceptable rates of death from non-traumatic surgical disorders and disability from injury will also result.

Death and disability from trauma and pregnancy-related complications can be substantially reduced through the following integrated strategy to maximize the effectiveness of district hospitals.

1. Personnel with appropriate education and training.
2. Practical continuing education programmes in clinical management to maintain the quality of care.
3. Appropriate physical facilities.
4. Equipment and instruments to meet the needs of district surgical services.
5. A reliable system for the supply of drugs and medication, surgical materials and other consumables.
6. A quality assurance system.

### Words of advice

1. **Develop a national plan for district level surgical services, with the consensus and collaboration of all relevant stakeholders.**
2. **Obtain support from educational institutions and professional bodies.**
3. **Ensure continuing education to enable practitioners to provide an effective surgical, obstetrics, trauma care and anaesthetic service.**
4. **Provide guidance for referral to specialized health facilities.**
5. **Maintain, repair and upgrade district hospitals to required levels and equip facilities adequately.**
6. **Assure adequate and reliable supplies of drugs, surgical materials and other consumables.**
7. **Ensure quality and provision of care.**



### Checklist

#### Personnel

- Clinical personnel with appropriate education and training in:
  - Anaesthesia and resuscitation
  - Obstetrics and gynaecology
  - General surgery
  - Traumatology
  - Orthopaedics
- Clinical support staff

#### Education programmes

- Evaluation of training needs
- Coordinated plan for education and training
- Training in skills needed for surgical care at district hospital level in both:
  - Basic training
  - Continuing education
- Educational resources in hospitals
- Monitoring and evaluation

#### Facilities

- Casualty area, operating room, labour and delivery room, high dependency area
- Continuous oxygen supply
- Blood bank and laboratory
- Diagnostic imaging
- Sterilization
- Water, electricity, safe waste disposal and communications

#### Equipment and instruments

- Surgical instruments for:
  - Minor surgery
  - Major surgery
  - Obstetrics and gynaecology
  - Orthopaedic surgery
- Anaesthetic equipment
- Resuscitation equipment
- Basic monitoring equipment

#### Supplies system

- Drugs, medication, blood and intravenous fluids
- Surgical materials
- Other consumables

#### Quality system

- Management
- Communication
- Supervision
- Evaluation

# Key elements

## District surgical service

Every government is responsible for ensuring an effective surgical service for its population. Part of the operational responsibility may be delegated to non-governmental organizations and others, but the overall responsibility remains with governments. The establishment and maintenance

of effective district surgical services requires:

- Government commitment and support
- National and district policies and plans for surgical services
- Coordinated plan for continuing education in liaison with

professional bodies, academic institutions and other partners

- Adequate budget
- Effective hospital management
- National quality system for surgical services, including standards, clinical guidelines, national standard operating procedures, records and audit.

### Personnel

#### Surgery

District surgical practitioners should be able to manage most obstetric, orthopaedic, trauma and abdominal emergencies, including:

- Caesarean section
- Laparotomy
- Amputation
- Surgical treatment of acute infection
- Resuscitation
- Head, chest and abdominal trauma
- Hernia repair
- Acute closed and open fractures
- Management of wounds and burns.

#### Anaesthesia

Anaesthetic practitioners should be able to provide anaesthetic service to 95% of surgical and obstetrical patients including:

- Local, regional and general anaesthesia
- Airway management
- Resuscitation
- Pain relief

#### Clinical support

The district hospital requires an effective team of trained support staff, including:

- Nurses and midwives
- Operating room personnel
- Laboratory technicians
- Maintenance staff

### Education programmes

Continuing professional development at district hospital level is essential to ensure that practitioners maintain the knowledge and skills needed to provide an effective district surgical service. This requires:

- Clinically-based continuing education programmes
- Educational resource materials in district hospitals
- Monitoring and evaluation

### Facilities

In each district hospital, space should be provided for:

- Reception/casualty department
- Operating room
- Labour and delivery ward
- High dependency area

Clinical support services are an essential part of district hospital surgical activity and should include:

- Continuous oxygen supply
- Blood bank and laboratory
- Diagnostic imaging
- Autoclave and other means of sterilization
- Safe waste disposal
- Water, electricity and communications.

### Equipment and instruments

All equipment and instruments require continuing maintenance, technical support and spare parts. High priority should be given to the standardization of equipment on a national basis to improve safety and facilitate servicing and support.

#### Surgery

Instruments are needed to cover all common surgical and obstetrical procedures. Several sets of duplicate instruments may be needed to allow continuous provision of services during sterilization.

#### Anaesthesia

A dedicated set of anaesthetic apparatus is required which provides a source of oxygen, inhalation anaesthesia and the ability to ventilate the lungs.

#### Resuscitation equipment

A continuous supply of oxygen, is required at key locations, including:

- Casualty
- Operating room
- Labour ward, delivery room and neonatal unit
- Paediatrics

### Monitoring equipment

Safe surgical care requires the availability in the hospital of simple monitoring equipment, including blood pressure and pulse oximetry.

### Supplies system

An effective system at national and regional level is required to ensure the consistent availability in district hospitals of supplies of essential drugs and materials needed for all common surgical and obstetrical emergencies. This requires policies on:

- Budgeting and procurement
- Transportation and storage
- Prescribing.

### Drugs and medications

- Blood and blood products
- Intravenous replacement fluids
- Anaesthetics
- Antibiotics
- Analgesics

### Surgical materials

- Gloves, gowns, drapes
- Sutures
- Dressings

### Consumables

- Disposable equipment and devices

### Quality system

A quality system to improve the quality and equity of patient care includes the following elements:

- Standards
- Clinical guidelines
- Standard operating procedures
- Records
- Audit