Definitive Perioperative Nurses Trauma Care Course (DPNTC)

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Trauma is the major cause of death in the first four decades of life
Trauma is the third most prevalent cause of death in all age groups (cardiovascular and cancer)
Including children under the age of 5yrs
Falls are the leading cause of injury while road crashes, burning and drowning are the lead causes of death.
In Australia, trauma statistics are relatively low compared to international figures.
In Australia:

85-90% of all major trauma is categorised as blunt trauma.
Penetrating Trauma

5 – 7%

Burns

5-6%
Majority of blunt trauma is related to:

- motor car accidents (34%),
- motor bike accidents (8%),
- cyclists (4%) and
- other transport (11%)
There is also a significant amount of blunt injury related to falls (22%)
Firearms cause a very small percentage of trauma (< 1%)
Most accidents occur on the street or highway (56%)
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At home

20%
Trauma is most commonly related to an accidental cause less than 5% related to assaults.
In blunt trauma:

- more than half the patients have significant head injuries and
- more than one third of the patients have significant thoracic injuries.
- Upper and lower extremity injuries are common.
• Serious abdominal injuries occur in about 15% of patients

• Therefore the total number of patients requiring abdominal surgery in blunt trauma … is relatively small

• Serious thoracic trauma is more frequent, but most do not require surgery
Operative orthopaedic intervention is required most frequently for extremity injury.
In penetrating trauma...

the most commonly
affected parts
are the

*thorax*

and the

*abdomen*
Historical perspective

Advanced Trauma Life Support program of the American College of Surgeons
and
Emergency Management of Severe Trauma Course of the Royal Australasian College of Surgeons

Proven benefits

\[ = \text{DSTC}^{(94-96)} \]
DPNTC

- August 2003

- Developed for nurses who may be challenged with the responsibility of caring for a patient with injuries within the operating environment.

- DPNTC is designed for nurses, by nurses.
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Planned response
• Metropolitan vs rural
• Early emergency response
• Equipment
• Staff
• Resources allocated
• Multidisciplinary teamwork and collaboration
DSTC/DPNNTC Content
A systematic approach is taught:
- Preparation
- Triage
- Primary survey (ABCDE’s)
  - **Airway** maintenance with cervical spine protection
  - **Breathing and ventilation**
  - **Circulation** with haemorrhage control
  - **Disability**: Neurological status
  - **Exposure / Environmental control**
The treatment of the seriously injured patient requires rapid assessment of the patient’s injuries and institution of life-preserving therapies.

- Resuscitation
- Adjuncts to primary survey & resuscitation
- Consider need to transfer
- Secondary survey - head to toe evaluation and patient history (AMPLE)
  - Allergies
  - Medications currently used
  - Past illnesses/ Pregnancy
  - Last meal
  - Events / Environments related to the injury
- Adjuncts to secondary survey
- Continued post resuscitation
DSTC/DPNTC Content
Day One

- Damage Control Surgery
- Blunt Abdominal trauma
- Blunt Thoracic trauma
- Haemodynamically unstable pelvic fracture
- Penetrating Abdominal trauma
- ED Thoracotomy
- Subclavian/Neck Exposure
- Fasciotomy
- Temporary Abdominal Closure
- Craniotomy
- Pericardial Window
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Day One

Animal laboratory
Day Two

- Head injury
- Penetrating Thoracic trauma
- Penetrating Neck injury
- Vascular Limb injury
- Cadaver dissection
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Australasia
Auckland
Melbourne/Sydney
Singapore
DPNTC - Mechanism of Injury
Common types of evidence:

- Blood semen, saliva,
- Organs
- Foreign bodies or tool marks on tissue
Primary operation and haemorrhage control

Achieving haemostasis, performance of only essential bowel resections, closing or diverting all hollow viscus injuries

A planned sequence of operations
DPNTC - Decisions Making

- MIST / SBAR
- Assessment, planning, implementation and evaluation
- Education
DPNTC - Communication

- Probe
- Alert
- Challenge
- Emergency
DPNTC - Roles and responsibilities

- Roles
- Team leader
- Allied team members
Incidence of hypothermia (50%)
- Emergency Department
- Intra-operatively

Complications
DIC
renal failure
hepatic failure
etc.
DPNTC - In conclusion

• Proven benefits
• Team work
• Positive patient outcomes
Thank you