Best Practice in Trauma Care in Australia

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Modern Medicine

Trauma clinicians need to understand decision dynamic

- Increasingly more effort for increasingly smaller health gains
- How does a Minister of Health decide between:
  - Cardiac disease (drug eluted stents)
  - Stroke units
  - Obesity and diabetes
  - bird flu
- Decisions
  - Advocacy
  - "Policy capture"
  - Big hospitals are under attack "regional hierarchies"

How to build a best trauma system

- Trauma Surgeons need to be well informed united and perpetual advocates
- Trauma clinicians need to understand each other's needs for service provision
- The solution is that there is enough room for different models: there can be an alignment between patient/local needs and provider needs.

Trauma Systems future - trends

- The tyranny of resources is increasingly overwhelming the tyranny of distance
- Increase public skills (emergent provider)
- Aeromedical trauma specific full skills to scene airway/breathing/circulation
  - HEMS London/German/USA
- Rapid transport to Definitive Care
  - ED 15 min, Scan on same floor space
  - Interventional Radiology Special Theatres
  - Inhouse senior consultants (Surgeons/Radiology)
- Outcome studies with comprehensive outpatients and in house research

Trauma Surgical Training Centre

Trauma Laparotomies (Surgical Training must centralise)

- NSW 2003 – 178
  2004 – 157
  2005 – 137

- Clinician lead change
  - Trauma Surgeons have to lead with they themselves initiating amalgamation

- Achieve critical mass:
  - work with like minded clinicians
  - acceptable "in house" rosters
  - modern equipment with skilled staff
  - senior trauma fellows

- "Best patient care" and "providers needs" do coincide

Best Practice in Trauma Care in Australia

- Institute of Trauma and Injury Management (ITIM):2001
  - Not associated with any one hospital but clinician focused
  - Separate from the Department of Health (DOH)
  - Triple reporting
    - To the trauma clinicians (Series of clinician lead committees)
    - To the Department of Health
    - To the Greater Metropolitan Clinical Taskforce (senior clinicians)
- Major and Critical Trauma Database (2000+ per year)
- Tackle all levels – bottom to top, top to bottom
- Problem solving
- Education
- Encourage research

Best Practice in Trauma Care in Australia

- Victoria:
  - Minister of Health leadership (Top down)
  - 2 Adult 1 Paediatric Centre for State
  - One Aeromedical service
- Queensland:
  - Exhaustive consultative process,
  - potential of 3 Adult and 1 Paediatric centre for the State
- NSW:
  - extensive collegiate system,
  - good metropolitan data,
  - but planning paralysis (9 Adult, 3 Paediatric)

Best Practice in Trauma Care in Australia

- Western Australia:
  - 2 good hospital based services but dispute as to which should be State Trauma Centre
- South Australia:
  - Trauma, burns at one hospital and retrieval service based at the other
- Northern Territory:
  - National trauma hospital funding but difficulty in implementation
- Canberra:
  - Good service but struggles to achieve critical mass
- Federal Government:
  - "Trauma is a State responsibility"

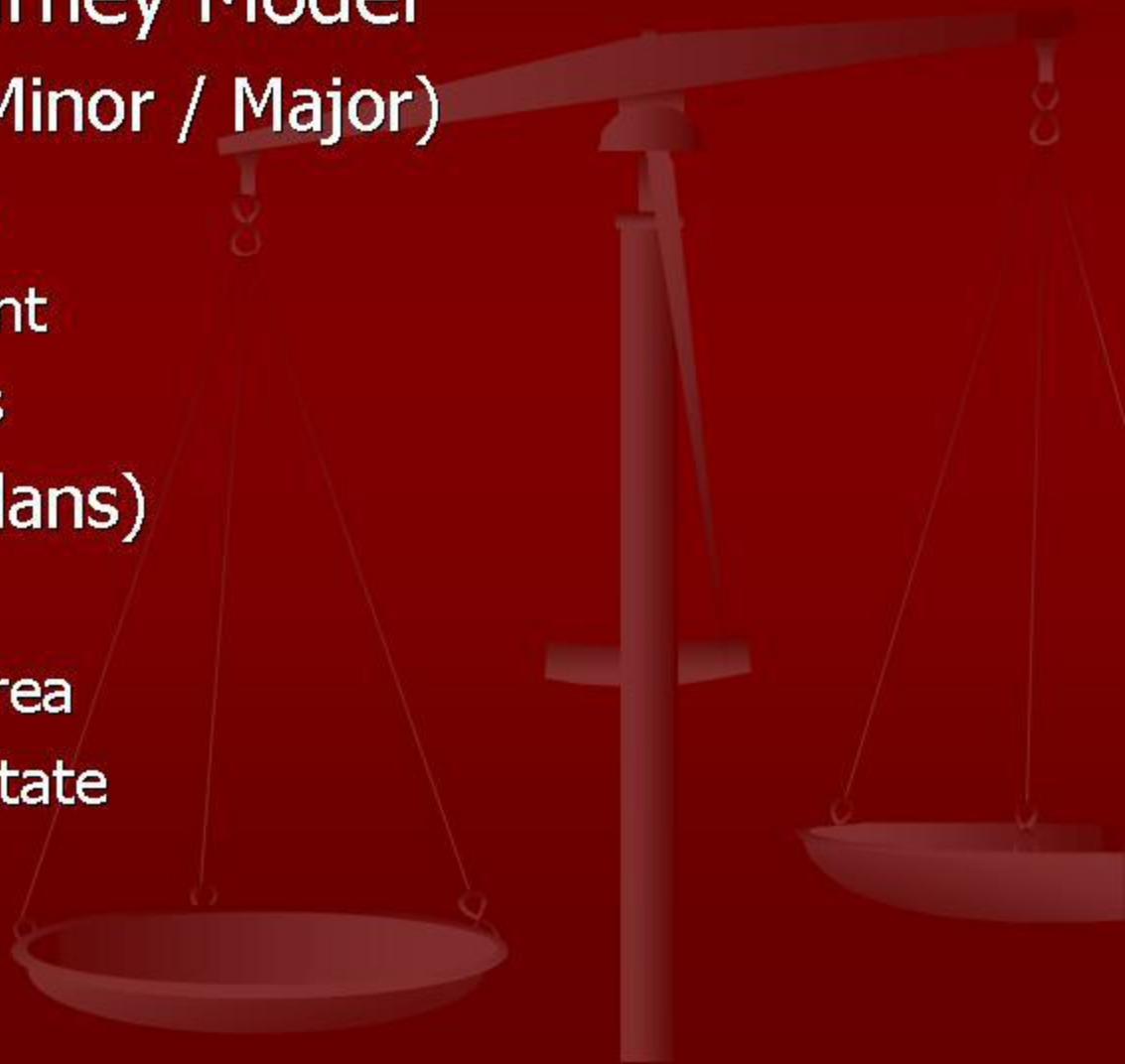
SUMMARY

- Best Practice depends on:
  - A whole community approach
  - Public:
    - understand and embrace prevention
    - Learn first responder and first aid skills
  - Health services:
    - be trauma patient focused
    - Resist tendency to be self-serving
    - Plan for the long term but be flexible
  - Government:
    - listen to trauma experts
    - Follow USA lead – Model Trauma system planning and evaluation (National Trauma Plan)
    - pick from the best around Australia and the world

Best Practice in Trauma Care

Patient Journey Model

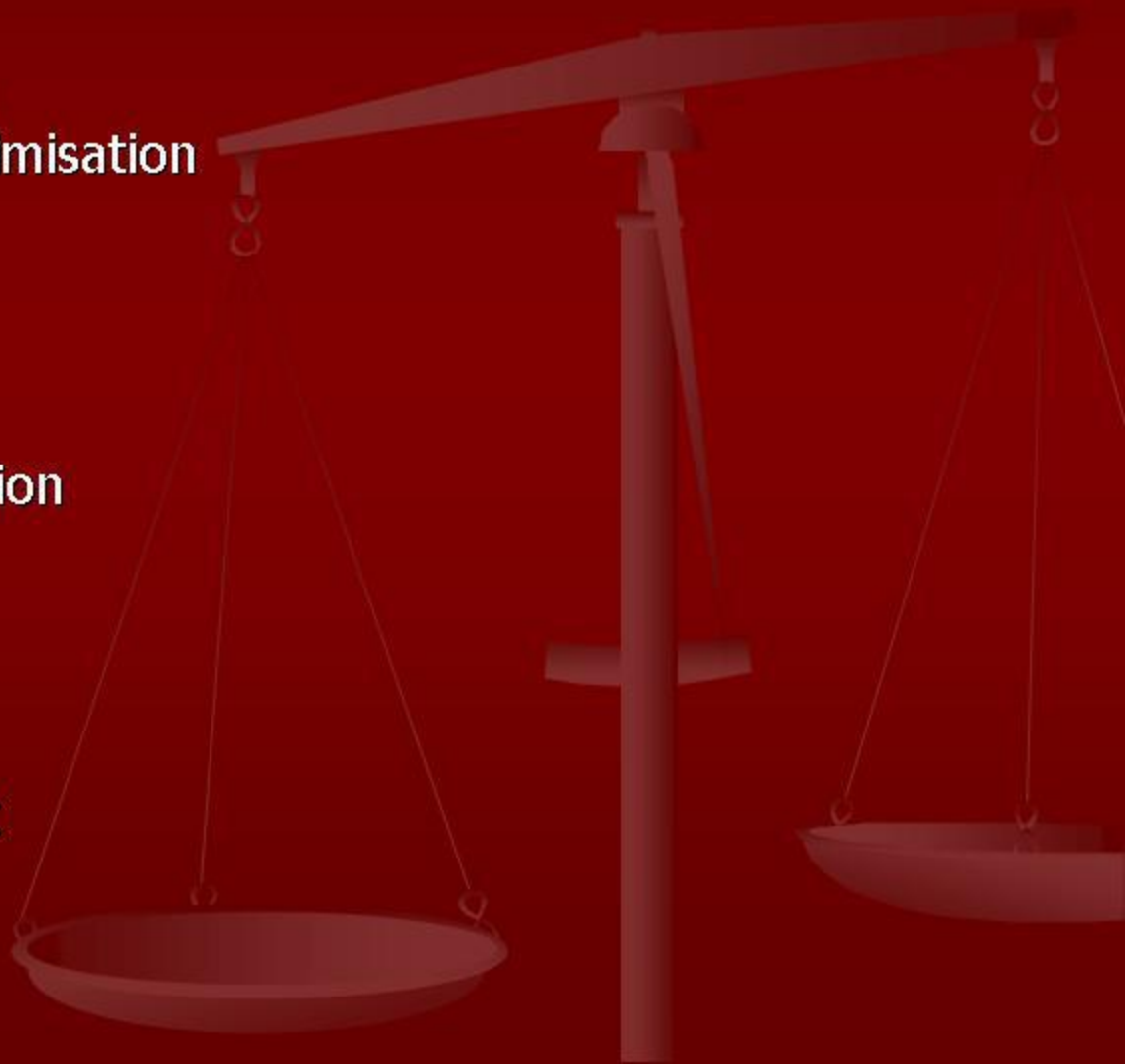
- Patients (Minor / Major)
- Resources
  - Equipment
  - Providers
- System (Plans)
  - Hospital
  - Health Area
  - Region/State
  - National



Best Practice in Trauma Care

Public Health Model

- Prevention
  - Avoidance
  - Injury minimisation
- Care
  - Scene
  - Transport
  - Definitive
  - Rehabilitation
- Data
  - Collect
  - Analyse
  - Plan
  - Implement
  - Measure



Best Practice in Trauma Care

- Australian experience in planning
- Each State has made it's own plan
  - NSW: Regional plan 1992: under review-stalled
  - Victoria: Ministerial committee 1999
  - Queensland: RACS trauma committee 2006
  - Western Australia: External reviews (x3)
  - South Australia: Internal review - forgotten
- No Federal Government National Plan

Best Practice in Trauma Care in Australia

- Simple
- The most critical part of optimal trauma practice is rapid transport from scene to definitive care.
- Injured patients have possible life saving intervention at the scene, or stop off at suitable hospitals for this.

Best Practice in Trauma Care
Implementation

1. Starts with Scholarship
   - Literature
   - Local data
2. Lead by Example
   - Walk the Talk
3. Understand the different local needs
   - One size does not fit all
4. Definitive surgical care is the key component
   - need a trauma surgical training centre
   - trauma/acute surgery model
   - ED lead service
5. Continual evaluation
   - dynamic environment

Best Practice in Trauma Care

- Trauma optimal care does not result from preparing an evidence based plan and all will understand, money will be provided and a system will be implemented.

Rather

- Trauma best practice is a campaign between zealots and cynics, between those happy with the status quo and those who want further improvement

Trauma Care Systems:
where it goes wrong

- The unfortunate truth:
  - Many services focus on their system rather than patient needs
    - Ambulance "acute transfer"
    - Emergency Departments "acute resuscitation"
    - ICU "critical care"
  - Many clinicians put self interest first
    - Nurses like to be close to home
    - Doctors want to feel comprehensive, and keep their skills up

- Some surgeons can be part of a arcane culture:
  - "I learnt by being thrown in, so should you".
  - "They are the hospitals patients and if administrators employ untrained people against my advice then it is their problem"
  - "The data shows volume does not matter so I am happy to deal with the few trauma patients who come into my hospital"
  - "Trauma fits best with acute surgery"
  - "I know I was espousing a different plan when I was at the other hospital, but now I have seen the light"