DISEASE LOAD OF CRITICAL CARE IN PAKISTAN

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DISCLAIMER

No conflict of interest
FRAMEWORK

- Broader View  - Burden of disease /Reasons
- Narrow down  - 1 year disease load of a SICU
- Focus  - Obstetric case mix
- Outcome  - Obstetric cases
- Suggestions  - The way forward
BURDEN OF DISEASE

- High
- Different disease pattern
- Advanced disease
- Reasons are many
Burdern of Disease

Basic reason

“Lack of infrastructure of Health care delivery”
REASONS

- Most population is rural
- Long distances
- Mode of transport
- Ineffective ambulance service
- Illiteracy / Negligence
- Disaster management plans?
- Terrorism
t delay
Irsa quota

A MAN who fell unconscious after police baton-charged agitating PIA employees at the airport on Friday being put into an open track to rush him to hospital.
RESULTS

- Major delays
- Diseases eradicated from the developed countries
- Complicated obstetrics
- Advanced disease stages
- Trauma
RECORD KEEPING

- Collection of data
- Maintenance of records
- Availability of statistics

Inadequate
SAMPLE OF DISEASE LOAD

Case mix of a Surgical ICU
Public sector hospital in Karachi
Civil Hospital, 1750 bedded, teaching hospital
SICU - 8 bedded unit
One year data - Year 2014
DEPARTMENT OF ANAESTHESIOLOGY,
SURGICAL INTENSIVE CARE AND PAIN MANAGEMENT
DOW MEDICAL COLLEGE & CIVIL HOSPITAL KARACHI

LIFE IS PRECIOUS
AVAILABLE DATA

- Admissions in a year - 874
- Discharged to ward - 617
- Expired - 257
- Elective admissions - 174
- Mortality - 29.4%
Major Trauma

Total 166 = 19%

- Road traffic accidents: 87 (16)
- Firearm injuries: 54 (12)
- Bomb blast injuries: 07 (07)
- Others: 18
Peritonitis / Faecal - 157 – 18%

- Typhoid perforations - 59
- Tuberculous abdomen - 36
- Advanced tumors - 27
- Trauma - 35
MEDICAL CASES

Admissions - 79 - 9%

- Tetanus - 27
- Organophosphorus Poisoning - 26
- DKA - 17
- Guillain Barre’ Syndrome - 08
- Naegleria fowleri - 01
ELECTIVE CASES

Post operative monitoring and management

Admissions – 174 – 20%

- Major prolonged surgery - 84
- Co-morbids with surgery - 38
- Anesthetic complications - 9
- Surgical complications - 18
- Neurosurgical tumors - 25
## Complicated Obstetrics

### Cases – 294 – 42%

<table>
<thead>
<tr>
<th>Condition</th>
<th>No.</th>
<th>Discharged ICU</th>
<th>Expired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massive Hemorrhage</td>
<td>91</td>
<td>62</td>
<td>29</td>
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<tr>
<td>+ Placenta previa</td>
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<td>+ Abruptio placentae</td>
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<td>+ Uterine atony</td>
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<td>+ DIC</td>
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<tr>
<td>+ Trauma due to delivery</td>
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<tr>
<td>Faecal peritonitis/Sepsis</td>
<td>23</td>
<td>12</td>
<td>11</td>
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<tr>
<td>+ Home delivery</td>
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<td>+ D/E</td>
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<tr>
<td>Uterine rupture/Obstructed labor</td>
<td>21</td>
<td>18</td>
<td>03</td>
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<tr>
<td>Cases</td>
<td>No.</td>
<td>Outcomes</td>
<td>Discharged</td>
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<tr>
<td>Eclampsia</td>
<td>135</td>
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<td>114</td>
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<tr>
<td>+ Cerebrovascular accidents</td>
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<tr>
<td>+ Hypertensive cardiac failure</td>
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<tr>
<td>+ Aspiration Pneumonitis</td>
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<tr>
<td>+ HELLP syndrome</td>
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<tr>
<td>+ Renal failure</td>
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<tr>
<td>+ Toxaemia</td>
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<td></td>
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<tr>
<td>Peri-partum cardiomyopathy</td>
<td>17</td>
<td></td>
<td>10</td>
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<tr>
<td>Valvular heart disease</td>
<td>07</td>
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<td>07</td>
</tr>
</tbody>
</table>
SIMPLE MEASURES – MAKE A MAJOR DIFFERENCE
SIMPLE MEASURES

MONITORING – CLINICAL VIGILANCE

Noninvasive

- NIBP
- ECG
- Pulse Oximetry
- Temperature
- Urine Output

Invasive

- CVP
- BP
- Serial ABG
SYSTEMIC SUPPORTS AVAILABLE

- Respiratory support
  - Ventilators / BIPAP
- Renal support
  - Hemodialysis
- Sedation
  - Midazolam, Propofol
- Analgesia
  - Fentanyl, Morphine (rare)
- Anticonvulsant
  - Magnesium Sulphate
- Inotropes & Vasopressors
- Blood & Blood products
- Nutritional support
DECISION MAKING

Largely clinical supported by simple noninvasive monitoring and systemic supports.

“Protocol based”.”Repetition”
Good News

Simple measures save many lives
WAY FORWARD

“Health care is a basic human right”

“Our government needs to show more commitment.”

“Philanthropy in Pakistan”

“Individuals /small groups efforts”
STEPS TO TAKE

- Health budget
- Population control
- Primary health care
- Public awareness programs
- Ambulance services
- ICU beds and facilities
- Disaster management policies
- Stopping the brain drain
“LIFE IS PRECIOUS”