

# National Trauma Database (NTrD)

Clinical Research Centre  
Ministry of Health



To review

- the methodology of NTrD
- its potential role as a research tool



## Presentation Outline:

- **Introduction to disease registry /database**
- Understanding the NTrD
- NTrD as Research Tool
- Conclusion



## Disease Registry:

### Definition i

Ongoing systematic *collection, analysis and interpretation* of disease data essential to the *planning, implementation and evaluation* of clinical & public health practice, closely integrated with *dissemination* of these data to those who need to know.

(Source: CDC)



## Disease Registry:

### Definition ii

The final link in the chain is the *application* of these data to disease treatment, prevention and control.

A disease registration system includes a *functional capacity* for data collection, analysis and dissemination linked to clinical or public health programs

(Source: CDC)



## Purpose of A Disease Registry

- **Quantify** disease burden (morbidity and mortality) and its geographic and temporal trends.
- Early **warning** of rapid increase in disease incidence, e.g.. Rheumatic Fever surveillance
- Identify **sub-groups** most at risk of disease
- Identify **potential** risk factors of disease
- Evaluate treatment programme / Clinical **audit**
- Evaluate control and prevention programme
- Facilitate **research**, e.g. disease etiology, Rx effectiveness, outcomes research, prognosis



## Uses of Registry data

- Treatment availability & accessibility (equity)
- Outcomes research
- Technology assessment
- Clinical economics
- Clinical audit
- Support clinical trial/ clinical research



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## How NTrD got started? i

- Trauma is an ever increasing problem and it is the leading cause of morbidity and mortality in the under 40s age group in most developed countries and developing countries including Malaysia. For every person killed there are at least two who survive with serious permanent disabilities. (Yates DW et al: 1990).

(HMIS Annual Report for Medical Care, MOH 2001)



## How NTrD got started? ii

In Malaysia, trauma is the third cause of admission to hospitals and fifth cause of death. From January 2000 to August 2000 there were 164 599 injuries due to road traffic accidents and 3625 victims died where as 5 529 were considered having serious injury.



- Trauma care is a chain of services, and its effectiveness depends on quality and cooperation between each individual service. Broadly, major trauma is defined as those injuries with the highest severity in terms of requiring time critical specialist care. Although the major impact of lowering the trauma morbidity and mortality is through prevention of injury, there is considerable evidence that early correction (resuscitation) and definitive management will result in better outcome (Cameron P et al: 1993). Therefore, quality of trauma care depends on pre-hospital care, resuscitation in Emergency Department as well as in-hospital care.



## Objectives of the NTrD

- i. Determine the frequency, mechanism of injury and distribution of major trauma in Malaysia. These are useful measures of health burden arising from the major trauma and its management in the country.
- ii. Determine the outcome and probability of survival of the trauma patients.



## Objectives of the NTrD

- iii. To evaluate the major trauma management in the participating hospitals and to come up with guidelines for improved trauma care.
- iv Determine the extent to which improvements introduced, have been achieved.
- v. Stimulate and facilitate research on major trauma and its management using this database.



## NTrD: Scope & Coverage

The scope and coverage of the database is to be implemented over time in phases:

Phase 1 of the proposed Trauma Database shall be limited to meeting objectives (i) and (ii) and eventually (iii) above.

Objective iv to vi could begin to be met as the database matures and as sufficient data has been accumulated.

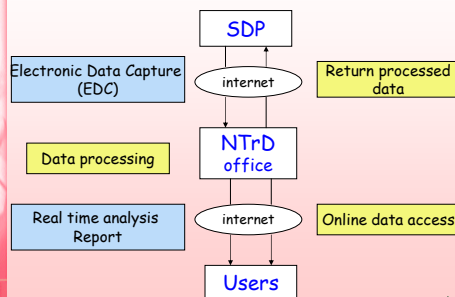


## NTrD Source Data Providers (SDP)

- The NTrD is intended to be a truly national population based registry. It therefore seeks the participation of all emergency and head injury care providers from all sectors (public, NGO and private) throughout the country.



## DATA FLOW



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## Registries and Research

Proyer et al distinguishes 4 areas in which registers can contribute to research

- descriptive studies
- improving performance of other research designs
- studies of process
- for hypothesis testing as an alternative of RCT with ethical concerns.





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# Conclusion

There is a NEED & CONSENSUS that a database on trauma disease in the country be complied and assess with respect to understand the results of these procedures as well as to benchmark our quality of care with that of international standards.







## Welcome to ACRM

The ACRM (Association of Clinical Registries, Malaysia) was established for the purpose of facilitating the set up and maintenance of clinical registries and databases in the country. Registry databases include information concerning demographics, diagnosis, treatment history and outcomes. A variety of output can be generated from the information collected.

In Malaysia however, there have been a lot of debatable issues surrounding clinical databases. The common problem seems to be in terms of collecting and sharing the data as well as database maintenance. Most institutions collect data for their own use. The majority of them have reservations with regards to data sharing even if it is for a common good. This is due to lack of clear policies on data sharing. These issues will remain unresolved unless measures are taken. Thus spurring the need to standardize (in both content and quality) and share databases.

This association was established to meet to those needs. It will be used as a platform to set up and maintain clinical databases for key diseases in Malaysia. It also aims to be the one stop portal where users can have access, physically and virtually to majority of clinical databases in Malaysia.

**Register with ACRM**


If you are currently involved or maybe planning to set up a clinical register or maybe interested in clinical databases, please send us an email at: [contact@acrm.org.my](mailto:contact@acrm.org.my)


We also welcome participation from both individuals as well as organizations keen to link up with us!

**Sign up as ACRM member today !!**

Visitor number  
**000033**  
since 01/2005








## WELCOME TO

### National Trauma Database - NTrD Web Application

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**Need Assistance?**  
Contact the nTrD Administrator at  
Tel: 03-4044 0815  
Monday - Friday 9.00am - 5pm





# Thank You !

