ICD-11: injury and external causes of injury

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Overview

- Context
- Process
- Specific issues
- Structural issues

Context

- Two large chapters
  - Chapter 19 – Injury
    - Themes: mechanical trauma, burns, poisoning, complications of care
  - Chapter 20 – External causes of injury
    - Themes: ‘accidents’ (nb traffic); suicide; assault; complications, etc.
- Debate and developments
  - Multi-axial classification of external causes (ICECI, etc)
  - Trauma systems, severity (AIS, ICISS, etc)
  - Growing interest in patient safety, etc
- Balance between changing too much or too little
  - Contexts of use (continuing & new), resources, etc
  - Preparing for likely developments

Process

- Process
  - Framing task
    - NB: need for clarity re certain rules and design constraints
  - Finding and assessing source materials
    - In progress
  - Assembling diverse TAG:
    - Experience of developing & using ICD-10;
    - Some young enough to be around for ICD-12
    - Data producers and data users
    - Experience of high and lower resource settings
    - Expertise in a range of parts of the topic
    - Expertise in related classifications (e.g. ICECI)
    - Well connected people (we need advice beyond the TAG)

Specific issues

- Examples
  - Documentation
    - Definition of key terms (e.g. ‘injury’, ‘suicide’)
    - Base on credible existing sources, where possible
  - Improved handling of Intent
    - Distinguish between ‘not [yet] known’ and ‘unintentional’
    - Mechanism is often known when intent is not; relax the constraint on coding known information on mechanism
  - Injury severity
    - Threat to life is measurable using ICD-9-CM and ICD-10-AM (ICISS)
    - Improve handling? Connection with AIS? Threat to functioning?
  - Specific concepts requiring attention
    - e.g. pedestrian vs conveyed pedestrian (on foot ≠ in 100kg scooter);
      traffic/non-traffic (handling if not stated; complex codes);
      rail/road intersections;
      and many more …

Structural issues

- 1. Implications of ontological approach
- 2. Code template and allowed ranges
- 3. Pre- and post-coordination
- 4. Multiple codes per record
- 5. Versions of ICD-11 and how they will relate

Structural issues

- Implications of ontological approach
  - The scene
    - Classification will be needed long into the coming era of electronic health records and terminologies. ICD could be a key part of this, but risks marginalisation if it does not become ‘computable’.
    - Preliminary examination of injury and external causes reveals no fundamental barrier to such change, BUT …
    - Making the full transformation will require investment of much thought, time and money.
  - The question
    - How much should and can be done for ICD-11?
    - The answer will affect how the TAG does its work.

Structural issues

- Code template and allowed ranges
  - ICD-10 allows:
    - Injury S00.0-T99.9
    - External Causes V00.0-Y99.0
  - Clinical modifications of ICD-10 allow up to 3 more digits
  - The question: What will ICD-11 allow?

Structural issues

- Pre- and post-coordination
  - ICD-10 is heavily weighted towards pre-coordination, but:
    - Aspects of injury and external causes classification are well suited to post-coordination. For example:
    - Treating Place as 4th character in Ext Causes chapter forces creation of many rarely used compounds & is structurally constraining.
  - More post-coordination in ICD-10 clinical modifications :
    - Modifier compound codes:
    - e.g. Burns: location/depth + area
    - Implicit compounds:
    - e.g. Head injury: intracranial injury (fact of + type + volume) + loss of consciousness (fact of + duration) + skull fracture (fact of + part of skull) + whether fracture is compound (i.e. communicates with a wound)
    - Multi-axial compounds
    - e.g. Nature/anatomical location of injury [± compounds] + Intent/mechanism + Place of occurrence + Activity when injured
  - The question:
    - What will be allowed in ICD-11?

Structural issues

- Multiple codes per record
  - Post-coordination presumes that multiple codes are allowed per record
  - Allowed under ICD-10 (& clinical modifications)?
    - typically ‘Yes’ for morbidity and ‘No’ for mortality
  - The question:
    - What will be allowed in ICD-11 versions?

Structural issues

- Versions and how they relate
  - Plans for ICD-11 have foreshadowed versions for:
    - Mortality
    - Morbidity
    - also: Primary care, Clinical specialty care, & Research
  - Case distributions & data needs differ between settings:
    - the same ‘short list’ of categories will not be optimal for all
    - different needs result in different structural preferences (e.g. underlying cause for mortality; reason for current admission/current contact for clinicians)
  - In which way will ICD-11 provide for the use cases?
    - One version (trying to allow for diverse needs, more or less well)
    - Single hierarchy of versions (i.e. collapsed/expanded versions)
    - ‘Underlying’ detailed version, from which specific versions are projected? (Perhaps with a ‘base’ version in common)

Summary & conclusions

- Good prospects
  - To improve the Injury and External Causes chapters of ICD.
  - ICD-11 injury and external causes chapters should:
    - Embody enough innovation to reflect change & make the effort worthwhile
    - Serve a wider range of uses and users than ICD-10
    - Retain backward comparability sufficient for continuance of important trends
- Keys to progress
  - Early decisions on certain aspects of structure and rules:
    - Essential for efficient progress to drafting
    - The decisions should have
    - input from users and custodians of ICD-10 & developers of ICD-11
    - a timetable for development (6/12?), refinement & decision (12/12?)
  - Realism about resources needed and available
    - Ambitions must match the time, money and people available.

Invitation to participate

- Submit specific issues, and proposals to remedy them
- Express interest in participating in debates that may emerge
- Respond to issues raised in this paper

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