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Can we avoid a Clinical Modification? A practical strategy to use ICD-11 for morbidity coding

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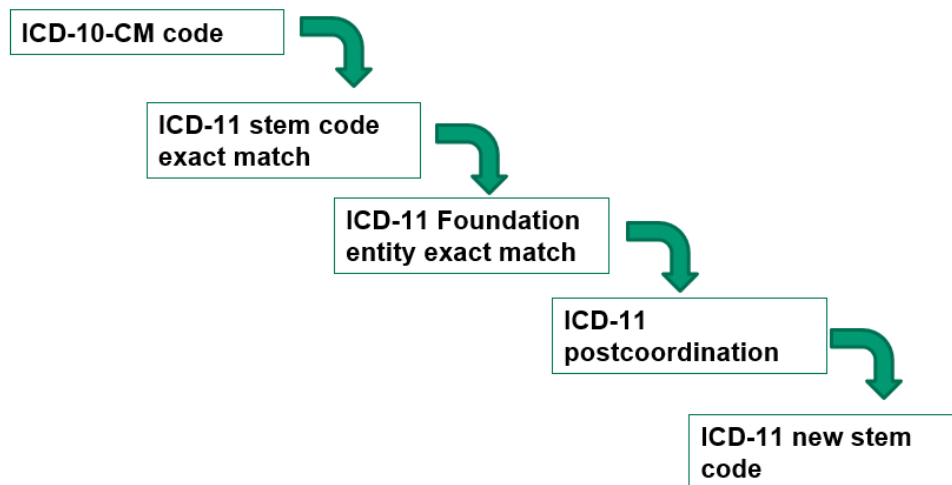
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Study design

- Sample of 1,725 ICD-10-CM codes
 - 909 most commonly used codes from all chapters
 - 816 codes from whole chapter of digestive diseases
- Map to ICD-11 using 'waterfall' method



Summary of recoding results

	Count(%)	Cumulative %
L1. Stem code	607(35.2%)	35.2%
L2. Foundation entity	195(11.3%)	46.5%
L3a. Postcoordination - existing code	740(42.9%)	89.4%
L3b. Postcoordination – new extension code	122(7.1%)	96.5%
L4. New stem code	61(3.5%)	100.0%
Total	1725(100%)	100.0%

Interpretation of results

- Our findings represent the best-case scenario of replacing ICD-10-CM with ICD-11 codes
- Prerequisites to achieve these results
 - Postcoordination can be used, otherwise coverage will reduce drastically (from 96.5% → 46.5%)
 - Impact on tooling, coder education and coding variability
 - Need to be compatible with messaging and other standards (e.g., HL7, FHIR, NCPDP)

Other prerequisites

- Residual categories are made compatible – needs alignment of hierarchical structure and coding guidelines
- Coding guidelines are harmonized
 - Inclusions, exclusions and an index provide guidance to coders and delineate the boundaries of a code
 - In our previous study, we found 10% code matches are associated with potential conflicts in the coding guidelines, which may affect coding in specific situations
 - The most severe coding guideline conflict can render a code unmappable

Unmappable code K56.41 Fecal impaction

- ▼ ⓘ K00-K95: Diseases of the digestive system (K00-K95)
 - ▼ ⓘ K55-K64: Other diseases of intestines (K55-K64)
 - ▼ ⓘ K56: Paralytic ileus and intestinal obstruction without hernia
 - ▼ ⓘ K56.4: Other impaction of intestine
 - ✍ ⓘ K56.41 : Fecal impaction

Exclusion

- EXCLUDES1: constipation (K59.0-)
- EXCLUDES2: incomplete defecation (R15.0)

Preferred

- Fecal impaction

ICD-11 for Mortality and Morbidity Statistics

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Foundation

Coding Tool

Proposals

Info

ME05.0 Constipation

▶ ME05.1 Diarrhoea

ME05.Z Other and unspecified change in bowel habit

ME06 Chronic enteritis of uncertain aetiology

▶ ME07 Faecal incontinence

ME08 Flatulence and related conditions

ME09 Rectal tenesmus

ME0A Visible peristalsis

ME0B Problems with defaecation, not otherwise specified

ME24.A3 Haematochezia

▶ ME24.A1 Haemorrhage of anus and rectum

KB87.2 Meconium ileus without perforation

ME24.A4 Melaena

ME0Y Other specified symptoms related to the lower gastrointestinal tract or abdomen

▶ ME10 Abnormalities related to hepatobiliary system

Foundation URI : <http://id.who.int/icd/entity/502284069>

ME05.0 Constipation

Parent

[ME05 Change in bowel habit](#)

Show all ancestors

Description

Constipation is an acute or chronic condition in which bowel movements occur less often than usual or consist of hard, dry stools that are often painful or difficult to pass. Here constipation other than specifically described elsewhere, such as in motility disorders of intestine or in functional bowel diseases, is described.

Inclusions

- faecal impaction

Exclusions

- Functional constipation (DD91.1)
- Functional constipation of infants, toddlers or children (DD93)

Conclusion

- Using a U.S. linearization augmented by postcoordination, the existing content of ICD-11 can fully represent 89.4% of the ICD-10-CM codes examined in our study
- It will be a huge missed opportunity if we embark on creating a full Clinical Modification without considering alternative approaches

Benefits of avoiding a Clinical Modification

- Avoid the cost of creating and maintaining ICD-11-CM
- Earlier use of an up-to-date, international medical classification
- Avoid divergence of the US Clinical Modification from the international core
 - Theoretically, ICD-10-CM should be totally compatible with ICD-10
 - However, significant differences can be observed e.g.
 - *E14 Unspecified diabetes mellitus* is not found in ICD-10-CM (diabetes unspecified is coded as type 2)
 - *K68 Disorders of retroperitoneum* is not found in ICD-10
- ICD-11 Foundation can be leveraged for
 - Alignment with other terminologies e.g., SNOMED CT
 - In the original design, SNOMED CT was to be used directly to build the Foundation. However, that was not realized for various reasons.
 - There is renewed interest to align the Foundation with SNOMED CT, a pilot project mapped a sample of codes.
 - Automated coding



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Thank you!