

Estimating the Impact of the Transition to ICD-10 on Medicare Inpatient Hospital Payments

ICD-10 Coordination and
Maintenance Committee

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Objective

To estimate the impact on aggregate IPPS MS-DRG payments to hospitals due to the transition to ICD-10 on October 1, 2015.

Disclaimer

- MS-DRGv33 for FY2016 using ICD-10 is going through the rule-making process.
- These estimates are based on
 - MS-DRGv32
 - FY2015 weights

Terminology

- “Grouper”
 - The software that assigns a MS-DRG based on coded diagnoses, procedures, sex and discharge status.
- “DRG shift”
 - When the MS-DRG from a record coded in ICD-9 is different from the MS-DRG from the same record coded in ICD-10
- “MCC” or “CC”
 - Secondary diagnosis designated (major) complication/co-morbidity

Results

(Using about 10 million FY2013 MedPAR records)

- 0.41% had DRG shift to higher paying DRG
\$13 more per \$10,000 (+0.13%)
- 0.66% had DRG shift to lower paying DRG
\$17 more per \$10,000 (-0.17%)
- Net: 1.07% with a DRG shift
\$4 less per \$10,000 (-0.04%)
- **Statistically zero**

More good news...

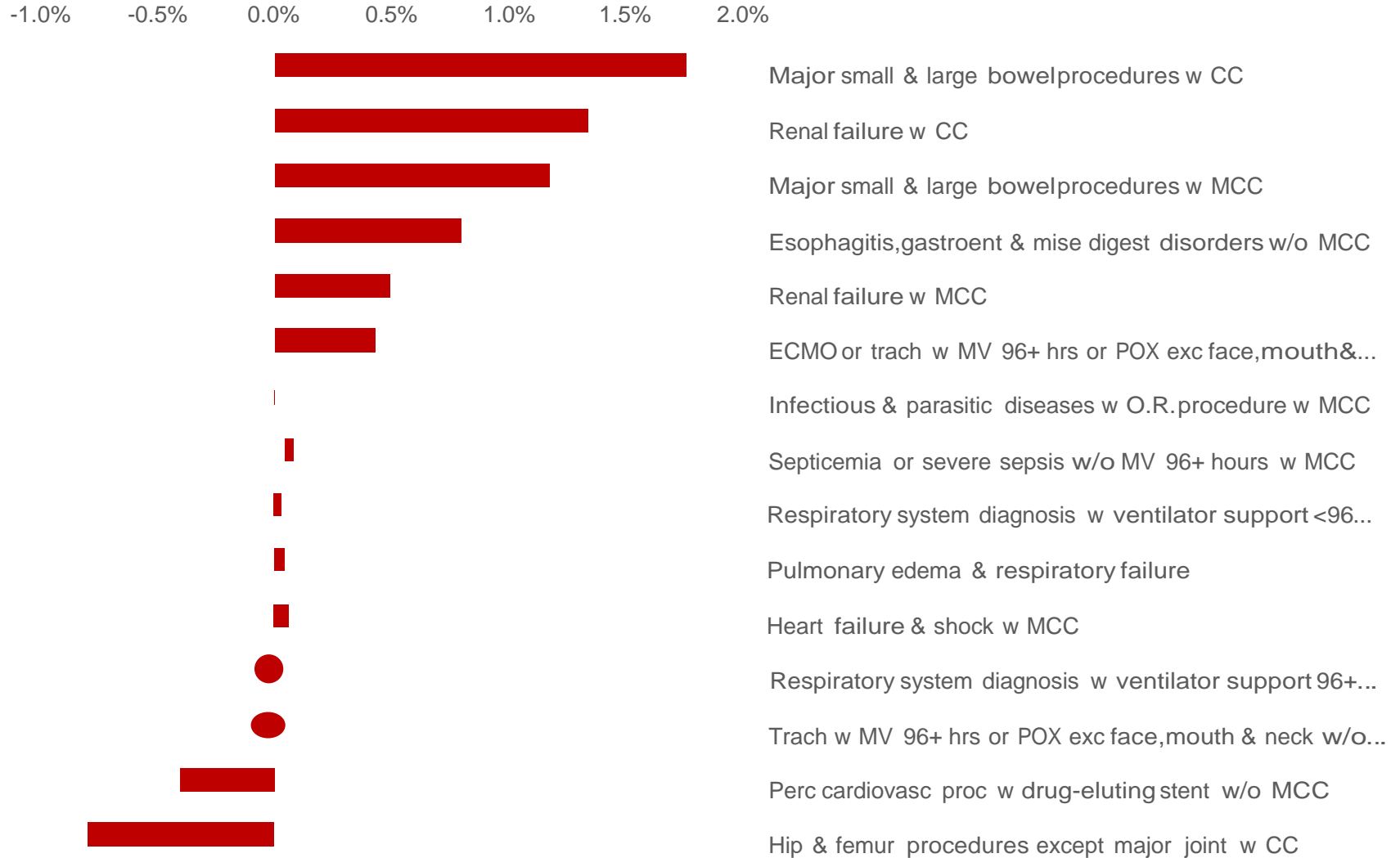
- Anecdotal evidence from some institutions which have dual coded ICD-9 and ICD-10, or have re-coded ICD-10 records with apparent MS-DRG shifts:
 - Coder coded records are less likely to change their MS-DRG from ICD-9 to ICD-10
 - Actual net reimbursement impact may be even less than that estimated here.

Impact by hospital type

Hospital type	Hospitals	Avg reimb	DRG shifts	Net reimb change
All	3,205	10,678	1.07%	-0.04%
Indirect Medical Education				
Top 10%	103	20,993	1.25%	-0.01%
All others	3,102	9,993	1.06%	-0.05%
Disproportionate Share Hospitals				
To 20%	641	13,186	1.22%	-0.05%
Middle 60%	1,923	10,146	1.05%	-0.04%
Bottom 20%	641	9,716	0.98%	-0.02%
Location				
Large Urban	1,340	11,908	1.13%	-0.04%
Other Urban	1,084	10,112	1.02%	-0.04%
Rural	781	7,081	1.00%	-0.06%
Size				
Top 10%	320	12,757	1.08%	-0.02%
All others	2,885	9,676	1.07%	-0.05%

All
statistically
zero

Estimated % change for top 25 MS-DRGs by expected reimbursement



Your results will depend on case mix

Why can't the ICD-10 grouper
be made to behave exactly like
the ICD-9 grouper?

Unavoidable differences

- Myth:
 - ICD-10 just adds detail to ICD-9
- Reality:
 - Distinctions no longer in common use have been removed from ICD-10.
 - Some areas (e.g. OB) use a different approach to classification.
 - ICD-10-PCS procedure codes have no diagnostic content.
 - Some coding guidelines have changed.

Replicating the MS-DRG grouper for ICD-10

- Distinctions made by ICD-10 not available in ICD-9?
 - No problem.
 - 130,000 out of 140,000 codes (93%)
- Distinctions made by ICD-9 (and used by grouper) no longer available in ICD-10?
 - Presents challenges that must be handled individually.

How shifts were minimized

- When an ICD-10 code contains conditions previously classified in different ICD-9 codes:
 - Treat the ICD-10 code like the more frequently occurring ICD-9 code
 - Cases coded with the less frequent ICD-9 code, when re-coded in ICD-10 may go into a different MS-DRG

Example – reconciling differences

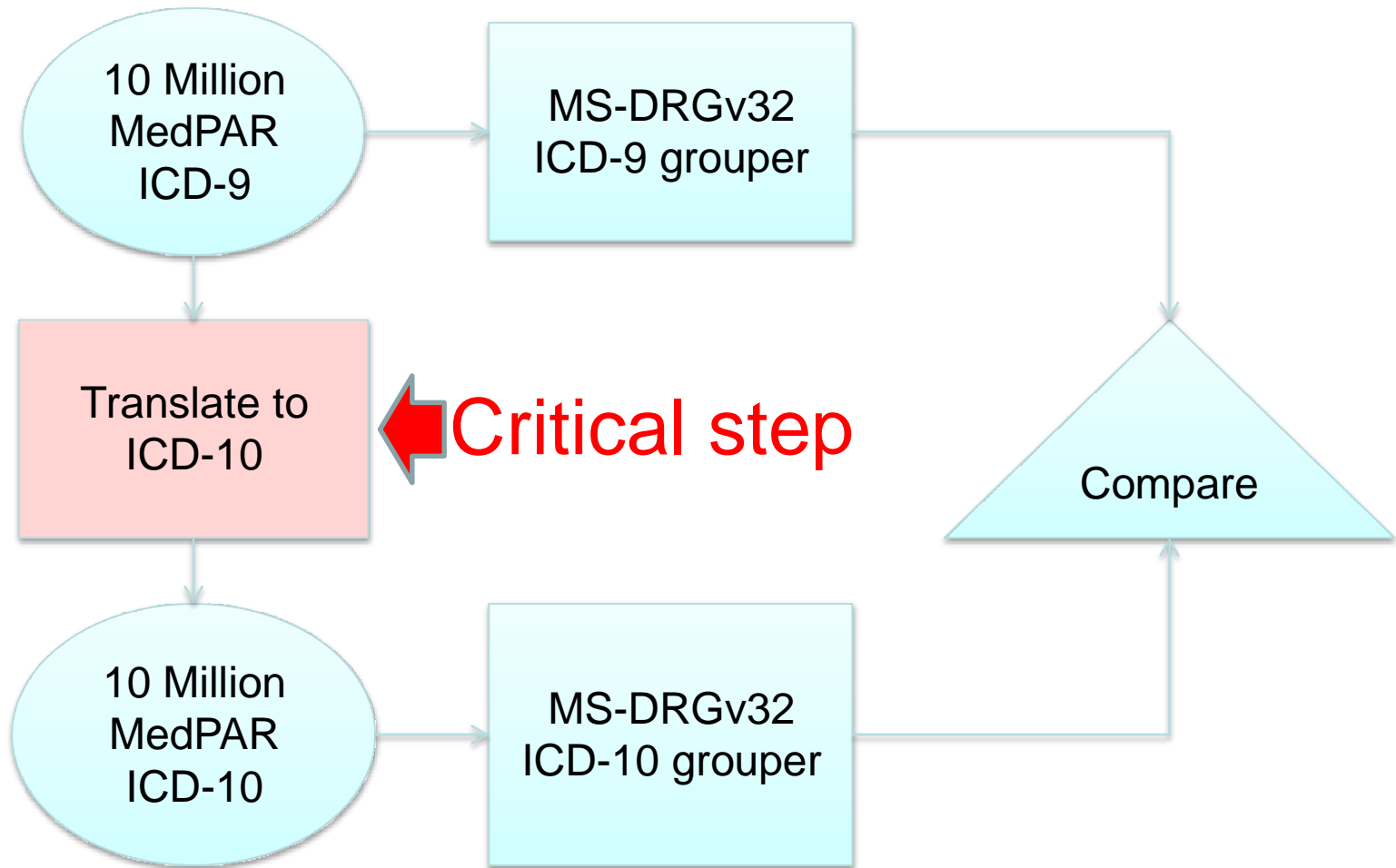
- Two codes different in ICD-9
 - 311, Depressive disorder, NEC
 - Not a CC. About 50 per 1,000 records
 - 296.20, Major depression, unspecified
 - A CC. About 5 per 1,000 records
- Both translate to F32.9 in ICD-10
 - Must make F32.9 like 311 (a non-CC)
 - Records with 296.20 in ICD-9 but F32.9 in ICD-10 will shift to a lower paying MS-DRG.

Impact estimates are sensitive
to the quality of the ICD-10
coding

How our estimates were made

1. Start with 10 million FY2013 MedPAR records coded in ICD-9
2. Group them using ICD-9 MS-DRGv32
3. Mechanically convert the records to ICD-10
4. Group those using ICD-10 MS-DRGv32 grouper
5. Compare results using FY2015 weights

How our estimates were made



Mechanical translation

- Using only the information in the ICD-9 codes, correctly code the record in ICD-10
- Ask “What would the coder do?”
- Using the GEMs requires careful logic
- The next three slides provides some specific examples

Translating procedures

- Groups of ICD-9 procedure codes may translate into single ICD-10-PCS codes.
 - Example: PTCAs
 - Up to 5 codes in ICD-9, one code in ICD-10
- ICD-10 does not include procedure information in diagnoses
 - Example: Obstetrics codes
 - Imply delivery in ICD-9 but need explicit procedure in ICD-10

Using clusters

- One ICD-9 code sometimes translates into more than one ICD-10 code in order to convey the same meaning. Example:
- ICD-9:
 - 241.11, Secondary diabetes with ketoacidosis, uncontrolled
- ICD-10
 - E08.10 Diabetes ... with ketoacidosis
 - E08.65 Diabetes ...with hyperglycemia

Using the GEMs

- A careful interpretation of the flow of meaning between codes in the GEMs is required to use them effectively.
- Explanation of GEMs formation is provided on the CMS site where GEMs are found
- Much written about this elsewhere

When these techniques aren't used...

Translation technique	DRG shifts
Translation as performed.	1.07%
Not using procedure translation logic	3.5%
Not using clusters	4.5%
Using I9-to-I10 GEM only <ul style="list-style-type: none">• Eight DRGs disappear (100% shift)• Forty DRGs have 50% or higher shift	6.5%

Common MS-DRG shifts

- 40% of shifts to lower weight MS-DRGs come from losing a CC or MCC
- 75% of shifts to higher weight MS-DRGs come from gaining a CC or MCC

Dual coding study

A coder with access to the original medical record will create more accurate codes than mechanical translation

- Coders code in ICD-9
- Group the ICD-9 coded records
- Coders code the same records in ICD-10
- Group the ICD-10 coded records
- Compare

Cautionary example

- 100 cases (a pilot study)
- 20 of them appeared to have a DRG shift but further analysis showed:
 - In 9 of these the ICD-10 coder found clinical facts the ICD-9 coder missed
 - In 9 others the ICD-9 coder found clinical facts the ICD-10 coder missed
 - Only 2 cases out of the 100 actually had DRG shifts due to differences between ICD-9 and ICD-10

Coding issues can impact DRG reimbursement more than the differences between ICD-9 and ICD-10

First year documentation improvement

- Documentation improvement targeted only on new ICD-10 detail may be useful in the long run, but may not impact the first year MS-DRG reimbursement.
- Areas where ICD-10 no longer works like ICD-9:
 - Code procedures. Do not rely on diagnoses.
 - “Malignant” hypertension
 - “Unspecified” diagnoses accepted as CC/MCC

Summary

- For a typical case mix, expect
 - About 1% of the cases shift MS-DRG
 - Net impact statistically zero
- Coding issues can have a greater impact than the differences between ICD-9 and ICD-10
- If you do an analysis like this with your own data, pay close attention to the mechanism you use to translate from ICD-9 to ICD-10.

Article Describing Impact

- Estimating the Impact of the Transition to ICD-10 on Medicare Inpatient Hospital Payments
- <http://www.cms.gov/Medicare/Coding/ICD10/ICD-10-MS-DRG-Conversion-Project.html> (First zipped documents under Downloads)

Questions

