Next steps in measuring quality across Medicare's delivery systems

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Today's presentation

- Summarize key points from November discussion: Refocusing quality strategy to enable comparison of FFS Medicare, MA, and ACOs in health care market areas
- Present two illustrative analyses of "potentially inappropriate use" measures
- Pose discussion questions and seek directions for future work

Note: FFS (fee-for-service), MA (Medicare Advantage), ACO (Accountable Care Organization).

Concerns with current quality strategy in FFS Medicare

- Use of process measures reinforces FFS incentives for volume of services, fragmented care delivery
- “Provider type” structure focuses each provider type on quality in own silo, not on care coordination
- Unnecessary complexity and burden for providers from growth in number of measures, little coordination with private payers
- Research literature finding process measure performance is not associated with patient outcomes in clinical practice

Alternative strategy: Measure quality for local FFS, MA, ACO populations

- Outcome measures:
  - Potentially preventable admissions, ED visits
  - Mortality rates
  - “Healthy days at home”
  - Patient experience
- Measures to monitor possible responses to incentives in each system
  - Example: overuse for FFS, underuse for MA & ACOs

Measure quality for local FFS, MA, ACO populations (cont.)

- How to delineate measurement areas for local FFS, MA, and ACO populations?
  - Ideal: Local health care delivery areas within which Medicare can delineate MA enrollment, ACO attributed patients, FFS beneficiaries
  - Illustrative examples today use CBSA and MSA, but not meant to be definitive
  - Will return with revised population-based outcomes analysis, discussion in April

Note: CBSA (core-based statistical area), MSA (metropolitan statistical area).

Measuring potentially inappropriate use

- Concept includes underuse and overuse
  - Underuse measures: Meant to detect stinting on clinically appropriate care
    - Monitoring responses to incentives in capitated and prospective payment systems
  - Overuse measures: Meant to detect delivery of services with little or no clinical benefit
    - Monitoring responses to incentives in fee-for-service payment systems
- Illustrative examples of overuse measures
  - Potentially inappropriate diagnostic imaging, repeat testing in FFS Medicare

CMS's measures of appropriate use of imaging in outpatient departments

- Purpose of measures
  - Limit unnecessary exposure to radiation and contrast agents
  - Improve adherence to evidence-based guidelines
  - Reduce unnecessary spending by program and beneficiaries
- Measures are based on claims
- CMS publicly reports measures at hospital, state, and national level
- Who should be held accountable for performance?

We analyzed 3 of CMS's imaging measures

- Patients with low back pain who had an MRI without trying conservative treatments first
- CT scans of the chest that were combination (double) scans
- Patients who got cardiac imaging stress tests before low-risk outpatient surgery
- All 3 measures endorsed by National Quality Forum
- We included all ambulatory settings (OPDs, offices, IDTFs); CMS only includes OPDs
- Examined geographic variation using CBSAs

MRI for low back pain without prior conservative treatment

- Several specialties recommend against imaging for low back pain except for certain conditions
- Inappropriate use of imaging for back pain leads to higher spending and may lead to additional procedures
- CMS's measure: share of patients in OPDs who received MRI for back pain without first trying more conservative treatment (physical therapy, chiropractic treatment, or E&M service)
- Measure excludes patients with serious conditions

CT scans of the chest that were combination (double) scans

- Patient receives CT scan without contrast, followed by 2nd scan with contrast
- Clinical guidelines: combination CT scans of chest not appropriate for most conditions
- Combination scans lead to higher spending and expose patients to additional radiation
- CMS's measure: share of all CT scans of chest in OPDs that were combination scans

Patients who got cardiac imaging stress tests before low-risk outpatient surgery

- Clinical guidelines recommend against using cardiac stress tests to evaluate patients before low-risk procedures
- Inappropriate use of cardiac tests leads to higher spending and may lead to unnecessary radiation exposure
- CMS's measure: share of all cardiac stress tests in OPDs that were received by patients during 30 days before low-risk outpatient surgery

National rates for imaging measures, all settings, 2010-2012

Measure	2010	2011	2012
MRI for low back pain without prior conservative treatment	36.0%	36.2%	36.0%
CT scans of chest that were combination scans	5.1	4.3	3.6
Cardiac imaging before low-risk surgery	5.0	5.0	5.0

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Note: Data are preliminary and subject to change.
Source: MedPAC analysis of 100% Medicare claims.

National rates for imaging measures, by setting, 2012

Measure	OPD	Physician office	Independent testing facility
MRI for low back pain without prior conservative treatment	38.2%	33.4%	34.6%
CT scans of chest that were combination scans	3.0	5.1	8.0
Cardiac imaging before low-risk surgery	5.3	4.9	4.7

Note: OPD (outpatient department). Data are preliminary and subject to change.
Source: MedPAC analysis of 100% Medicare claims.

Variation in rates for imaging measures across CBSAs, 2012

	MRI for back pain	CT of the chest	Cardiac imaging
5th percentile (high performing area)	29.1%	0.4%	3.6%
First quartile	32.9	1.1	4.3
Second quartile (median)	35.8	2.2	4.8
Third quartile	38.7	4.5	5.3
95th percentile (low performing area)	44.6	10.7	6.3

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Note: CBSA (core based statistical area). Data are preliminary and subject to change.
Source: MedPAC analysis of 100% Medicare claims.

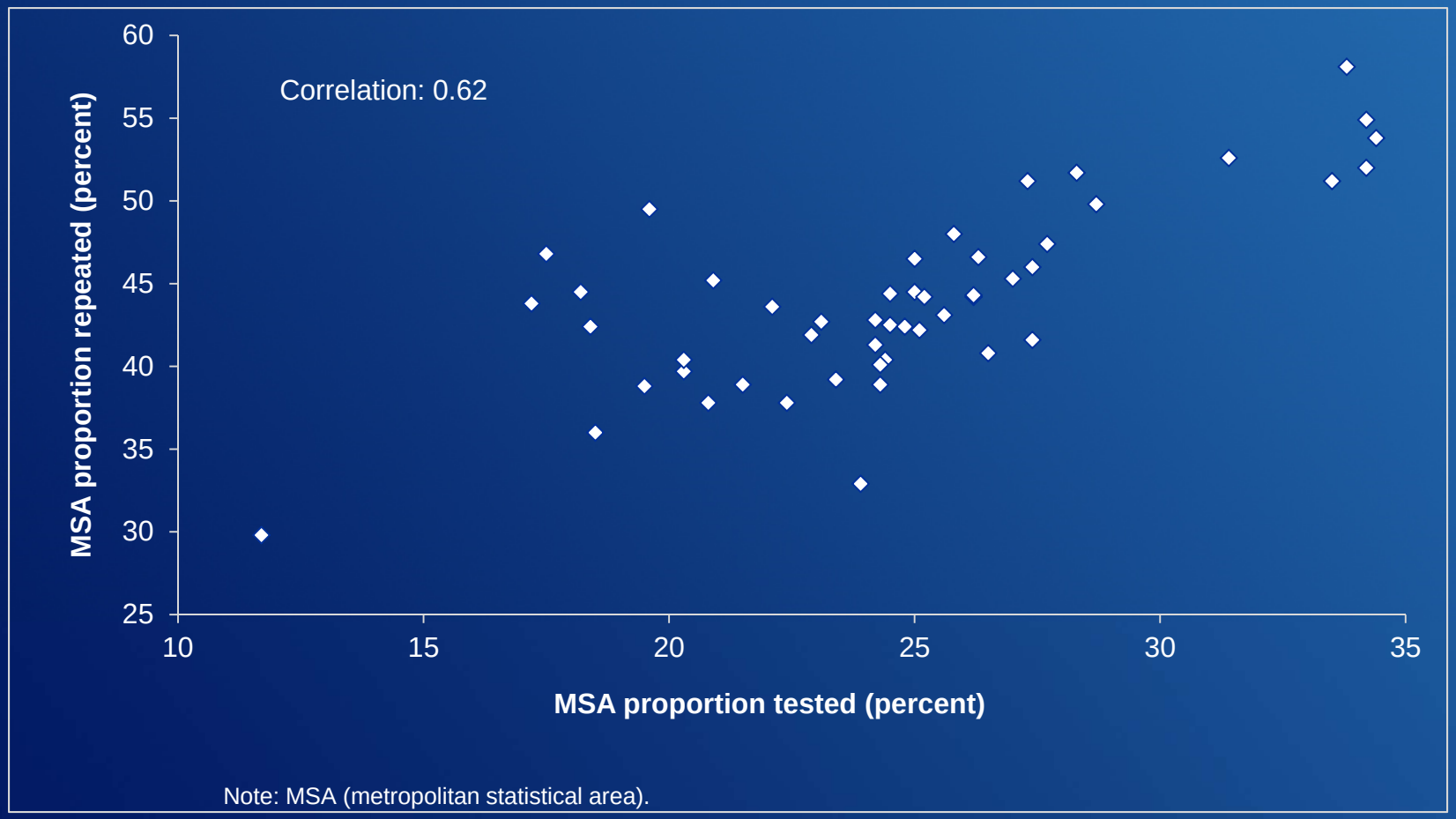
Measuring potentially inappropriate use: Repeat testing

- Two forms of inappropriate use
  - A service furnished to too many patients
  - Too many services furnished to same patient
- Commission-sponsored studies
  - Repeat use of imaging, tests, and diagnostic procedures
  - Repeat upper endoscopy: frequency and diagnoses

Repeat testing is common and has high degree of geographic variation

- Six services studied
  - Echocardiography
  - Imaging stress tests
  - Chest CT
  - Upper GI endoscopy
  - Pulmonary function tests
  - Cystoscopy
- One-third to one-half repeated within 3 years
- Variation among largest MSAs suggests decisions to repeat influenced by factors other than disease burden

Repeat imaging stress tests positively correlated with receipt of at least one such test



Note: MSA (metropolitan statistical area).

Source: Welch et al. 2012. Repeat testing among Medicare beneficiaries. *Archives of Internal Medicine* 172, no. 22 (December 10/24): 1745-1751.

Conclusion: Repeat testing

- Expected no correlation between proportion of beneficiaries receiving an initial test and the proportion repeated
- If any correlation, expected negative
  - High proportion tested would include many found with no disease
  - Low proportion of repeats
- Instead, the correlation is positive
  - Areas with high proportion tested also have high proportion repeated

Issues for Commissioner discussion

- Strengths and challenges of measuring potentially inappropriate use?
- Apply overuse and underuse measures in all three payment systems or select to target each system's incentives?
- Apply overuse and underuse measures at population level, provider level, or both?
- Do overuse/underuse measures fit into potential quality strategy?
  - Fewer measures, focus on population-based outcomes, more priority in synchronizing with private payers