American Health Information Community
2007 Quality Use Case

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Quality Use Case

• AHIC Quality Use Case addresses key areas based on AHIC working group priorities and issues:
  – Use of EHR data to support quality measurement, feedback to clinicians, clinical decision support, and reporting
  – Support for quality measures based on non-claims-based clinical measures
  – Support for quality measures based on data from multiple entities and data sources
  – Support for quality measures based on longitudinal patient data
Quality Use Case

- Considerable “to be” expectations
- To support a core set of AQA and HQA measures
- Two scenarios:
  - Quality measurement of care provided by clinicians
  - Quality measurement of care provided in hospitals
- Multiple functional roles
## Clinician Quality Information Collection and Reporting

### Perspectives/Roles

- 7.1 Clinician
- 7.2 Information Exchange
- 7.3 Multi-entity Measurement and Reporting

### Information Sources & Recipients

- Government Health Care Agencies
- Public Health Agencies
- Health Researchers
- Consumers
- Ancillary Organizations
- Healthcare Payors and Purchasers
- Quality Organizations
- Processing Entities
- Clinicians/Health Care Delivery Organizations

### Process Overview

1. **7.1 Clinician**
   - 7.1.1 Receive listing of defined measures & abstraction guidelines
   - 7.1.2 Perform & document patient care
   - 7.1.3 Filter EHR data for information matching inclusion/exclusion factors
   - 7.1.4 Healthcare encounter ends
   - 7.1.5 Merge claims data with EHR data & manual extraction of patient data
   - 7.1.6 Aggregate & validate patient information required for quality measures
   - 7.1.7 Calculate quality measure, validate and correct if necessary
   - 7.1.8 Transmit patient-level quality information
   - 7.1.9 Receive and validate preview report of quality measures; provide corrections if required
   - 7.1.10 Identify areas for improvement
   - 7.1.11 Inform electronic work processes to prompt improvement at point of care and support efficient quality reporting
   - 7.1.12 Implement quality improvement initiatives

2. **7.2 Information Exchange**
   - 7.2.1 Match patient-level longitudinal data
   - 7.2.2 Pseudonymize data
   - 7.2.3 Point to point exchange
   - 7.2.4 Perform audit for accuracy of quality measurement
   - 7.2.5 Perform audit for accuracy of quality measurement
   - 7.2.6 Format and distribute quality information

3. **7.3 Multi-entity Measurement and Reporting**
   - 7.3.1 Collect Information
   - 7.3.2 Calculate quality measures for each clinician
   - 7.3.3 Transmit preview report of quality measures for validation/correction
   - 7.3.4 Re-calculate quality measures as needed
   - 7.3.5 Perform audit for accuracy of quality measurement
   - 7.3.6 Format and distribute quality information

### Notes

- **Health Information Exchange**
  - OR
  - Match patient-level data
  - Pseudonymize data
  - Point to point exchange
Clinician Quality Information Collection and Reporting

**Scenario Flows**

1. Defined quality measurement specifications to be reported are sent to clinicians.
2. Notice is given to clinicians to support clinical decisions and augment recorded data.
3. Longitudinal health information held in associated repositories is forwarded by the HIE (patient-level – identifiable).
4. Clinician quality data is sent either via an intermediate entity or point-to-point for onward transmission to the Multi-entity Feedback and Reporting entity (patient-level – identifiable).
5. Preview report is sent directly for validation and/or correction (aggregated clinician-level data).
6. Corrected quality information is sent directly to the Multi-entity Feedback and Reporting Entity (patient-level – identifiable).
7. Corrected reports are sent for validation and/or correction (aggregate clinician-level data).
8. Claims data is collected from Payors (patient-level – identifiable).
9. Distributed data is available to users (aggregate clinician-level data).
Hospital-based Care Quality Information Collection and Reporting

6.1 Hospital-based Care

6.1.1 Receive listing of defined measures & abstraction guidelines
6.1.2 Perform and document patient care
6.1.3 Filter EHR data for information matching inclusion/exclusion factors
6.1.4 Discharge patient
6.1.5 Augment EHR data with manual extraction of patient data
6.1.6 Aggregate & validate patient information required for quality measures
6.1.7 Calculate quality measure, validate and correct if necessary
6.1.8 Transmit patient-level quality information
6.1.9 Receive and validate preview report of quality measures; provide corrections if required
6.1.10 Identify areas for improvement
6.1.11 Inform electronic work processes to prompt improvement at point of care and support efficient quality reporting
6.1.12 Implement quality improvement initiatives

6.2 Information Exchange

6.2.1 Match patient-level longitudinal data
6.2.2 Pseudonimize data
6.2.3 Point to point exchange

6.3 Multi-hospital Measurement and Reporting

6.3.1 Collect Information
6.3.2 Calculate quality measures for each hospital
6.3.3 Transmit preview report of quality measures for validation/correction
6.3.4 Re-calculate quality measures as needed
6.3.5 Perform audit for accuracy of quality measurement
6.3.6 Format and distribute quality information
6.3.7 Identify areas for improvement
6.3.8 Inform electronic work processes to prompt improvement at point of care and support efficient quality reporting
6.3.9 Implement quality improvement initiatives

Information Sources & Recipients

Government Health Care Agencies
Public Health Agencies
Health Researchers
Consumers
Healthcare Payors and Purchasers
Quality Organizations
Processing Entities
Ancillary Organizations
Clinicians/Health Care Delivery Organizations
Hospital-based Care Quality Information Collection and Reporting Flow

Scenario Flows

1. Defined quality measurement specifications to be reported are sent to hospitals.
2. Notice is given to clinicians to support clinical decisions and augment recorded data.
3. Longitudinal health information held in associated repositories is forwarded by the HIE (patient-level – identifiable).
4. Hospital quality data is sent either via an intermediate entity or point-to-point for onward transmission to the Multi-Hospital Measurement and Reporting entity (patient-level – identifiable).
5. Preview report is sent directly for validation and/or correction (aggregated hospital-level data).
6. Corrected quality information is sent directly to the Multi-hospital Feedback and Reporting Entity (patient-level – identifiable).
7. Corrected reports are sent for validation and/or correction (aggregate hospital-level data).
8. Claims data is collected from Payors (patient-level – identifiable).
9. Distributed data is available to users (aggregate hospital-level data).
Some Quality Intersection Issues

• Data stewardship, authorization and access
  – Linking of longitudinal, multi-data source data
  – Temporal stewardship - provider feedback from such data that precedes reporting
  – Needs for measure result validation

• Integration with consumer capabilities

• Levels of information
  – Longitudinal, multi-entity, multi-provider, multi-hospital
  – Relationship to linking, pseudonimization, de-identification

• Use limitations and appropriate business rules