CHALLENGES WITH (AND A FEW SOLUTIONS TO) THE INCREASED DEPENDENCY ON HL7 AIRA NATIONAL CONFERENCE

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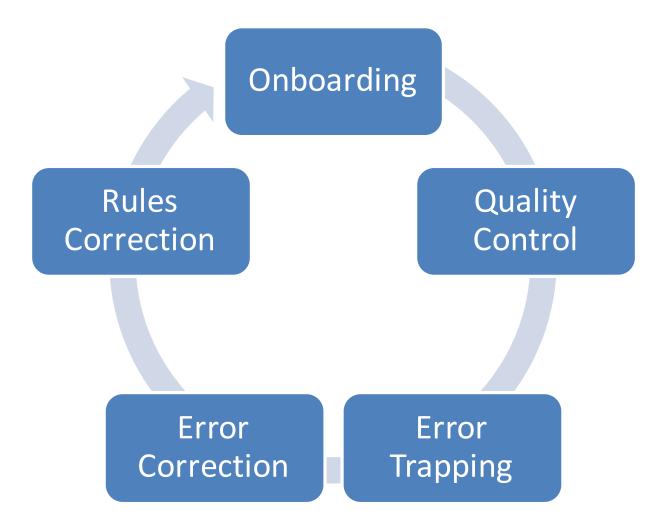


Current Landscape

- HL7 is becoming the predominant source of immunization data entering IIS
- Reduced data quality is a pervasive issue due to variability in senders
- Once onboarded, very little incentive for senders to improve quality
- IIS managers nonetheless responsible for consistent standards of data quality

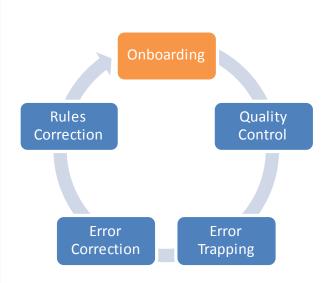


Cycle of Improvement





Onboarding



- Establish standards for acceptable message quality
- Build relationship with senders for continuous quality improvement

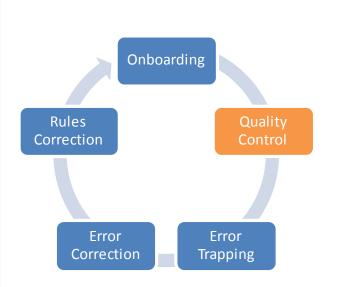


Onboarding: Best Practices

- Set expectation of monitoring and repeat
- Test for core content and common edge conditions
- Test against specific implementation of local HL7 engine
- Stage onboarding process:
- Compliance -> sandbox -> live in QA -> live in PROD



Quality Control



 Ongoing measurement and assessment of incoming data quality and resultant system quality

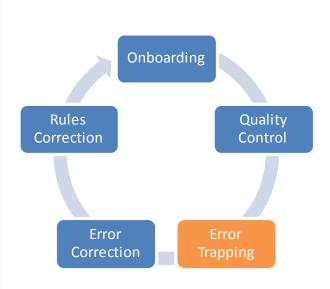


Quality Control: Best Practices

- Ongoing measurement of incoming data
 - Record-by-record, and in aggregate
- Provide feedback mechanism for providers and EHRs
 - Public reporting highly effective motivator



Error Trapping



- Stop bad data from getting into the system
- Dealing with potential errors:
 - Type 1: Records match but IIS concludes they do not. Duplicate created.
 - Type 2: Records do not match but IIS concludes they do. Data corrupted.



Error Trapping: Best Practices

- Detect changes in quality/quantity and react quickly
 - Automated governor/throttle
- Send questionable messages to queue for human review or reprocessing
 - High cost, so have to weigh advantages



Error Correction



 Determine common problems and work towards compliance, either at sender or receiver

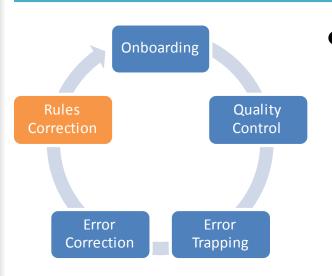


Error Correction: Best Practices

- Tightening HL7 ACK conformance (v1.5) reduces errors and rejections
 - Must provide more detailed, actionable information to sender
- May choose to implement pre-processor to clean incoming data
 - Caution: this "temporary fix" may never go away



Rule Correction



 Changing local implementation to align with standards, or (less frequently) changing standards



Rule Correction: Best Practices

- Update onboarding tests and scoring based on trends and external changes
 - Establish re-onboarding process for existing partners after rule changes, SW upgrade or data quality failure



Conclusions

- HL7 is an interchange standard, not a quality standard
 - Even as an interchange standard, subject to local interpretation
- Managing HL7 feeds from providers (and their EHR vendors) is a constant, ongoing effort
 - Need vigilant monitoring, especially through automation



Questions & Answers

