Radiation Oncology Workflow Exchange with HIS (ROWE) Summary

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Overview of the Use Case

- Multiple information systems used in the daily care of patients. For daily treatment workflow, the following items must occur:

  - **Charge Codes**
    - Enter codes
  
  - **Check-In**
    - Demographics
    - Insurance
    - Arrive
  
  - **Check-Out**
    - Complete visit
    - Make appt for next treatment
  
  - **Treatment**
    - Demographics
    - Arrive
    - Treat / Generate Codes
  
  - **Scheduling**
    - Make appt for next treatment
Currently, multiple health information systems used for each purpose – and patient information not shared

Manual copying of data from one system into another is error prone / time consuming

Changes made in one system do not update in other (name change/contact info)
The Solution

Bidirectional flow of patient demographics and scheduling from hospital information system (HIS) and Treatment Planning System (TPS) and Treatment Delivery System (TDS)

HIS
- Check-In
- Charge Capture
- Demographics, Insurance, Arrive

TPS
- Plan
- Treat / Generate Codes
- Schedule next treatment
- Complete Visit

TDS
- Charge Codes, Schedule, Complete Visit
- HL7 archive

HIS
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The Benefit

**Improved accuracy of data**
- Charge Capture more timely / accurate
- Patient contact info more accurate

**Clinical staff performance improvement**
- Increased efficiency: Only need to perform function once
- Fewer distractions of having to reconcile multiple systems
Issues for Discussion

- WHAT demographics need to transfer?
  - Name, MRN DOB, Ins, contact info, diagnosis, charges, scheduling

- Important to have appointment flexibility and control over linac schedule
  - Directionality of scheduling – which system overrides other?
Scoring Metric: Applicability / Reach

- Widely applicable
- Any radiation oncology clinic with a different vendor for EMR and TPS/TDS
Scoring Metric: Safety

- Contact information key to reach patient in case of sudden change in schedule
- Reduces billing errors
- Easier flow = less distraction for clinical personnel leading to overall error reduction and an increase in safety.
Scoring Metric: Technical Ease of Implementation

- HL7 archive?
Scoring Metric: Industry Alignment

- Part of CMS goal to migrate to all electronic health records