Imaging Decision Support

► Payers increasingly use radiology benefit managers (RBMs, “pre-authorization”) to control imaging utilization

► Imaging decision support systems (DSS):
  • Alternative to RBMs
    o Integrated with EHR (Epic, Emtrac, and eventually Sunrise)
  • Advice to ordering clinicians
    o At the point of order
    o Evidence-based
    o Configurable based on Penn Medicine needs
  • Enables Penn Medicine management of imaging utilization
    o Gain exemption from proposed Medicare RBMs
    o Facilitates risk/benefit-sharing agreements with payers
Scatterplot of outpatient CT examination volumes (y-axis) per calendar quarter (x-axis) represented by red diamonds.

Sistrom C L et al. Radiology 2009;251:147-155 (Massachusetts General Hospital)
Medicare Demonstration Project

► Funded by contracts from CMS, NIBIB, GE Healthcare
  • Consortium: Brigham and Women’s, Penn, Cornell, Geisinger
  • Other consortia: Henry Ford Health System, Maine Medical Center, University of Wisconsin, National Imaging Associates

► Scope
  • CPUP providers, Medicare fee-for-service outpatients
  • 11 imaging exams:
    o CT brain, L-spine, sinus, thorax, abdomen, pelvis
    o MR brain, L-spine, shoulder, knee
    o Nuclear imaging (SPECT) of the heart

► 2 year project, led by corporate IS
  • 6 month baseline period
  • 18 month intervention period
1) Select imaging exam in Epic

To place an order with Imaging Support, first select your imaging exam in Order Entry.
2) Sign Orders

Associate a diagnosis with the order and click **Sign Orders** as usual.
3) Order validation

You must enter clinical indications by clicking Enter Indications.
4) Select indications

Check off the appropriate indications and click **Proceed with Order Validation**.
5) Questions

You may be required to answer some clinical questions. Click off the appropriate answers and click **Continue**.
6) Validation

As indicated on the Order Validation screen, you must click **OK** and **Sign** the order again to proceed.

The following information is missing or may need your attention:

**Imaging Decision Support:**
Clinical indications must be documented for CT Chest without contrast before the order can proceed. Click **Enter Indications**.

When you've completed indications documentation, click **OK** below and Sign the order again to proceed.

These orders cannot be signed:

1. Chest Pain, unspecified  785.00
2. Pulmonary  785.1
7) Sign Orders

Clicking Sign Orders completes the order.
Imaging Decision Support Update

- NIBIB and CMS contracts awarded, GE research agreement pending
- Decision support rules reviewed by:
  - UPHS Decision Support committee
  - Relevant radiology section chiefs
  - UPHS ambulatory EMR Operations committee
- Phased go-live starting in early December:
  3701 Market, Neurology, GI Surgery