ClinStar: Bi-Directional Physician Office Integration

ClinStar enables bi-directional physician office integration between any HL7-enabled physician EMR and the McKesson STAR™ system. It eliminates the need for re-registration and re-entry of orders in STAR when the patient arrives for outpatient diagnostic testing and enables results to post to the physician EMR. A 350-bed community hospital with numerous physician practices and clinics has been successfully using ClinStar for a couple years to smoothly process patients for outpatient diagnostics.

ClinStar features:

- McKesson STAR Inbound registration from Physician EMR, including guarantor and insurance.
- The ability to place orders in the Physician EMR application, have them flow to STAR and then have results from STAR flow back to the EMR.
- A scheduling function that allows entry of pre-certification and pre-authorization information and batching of ADT’s and orders for STAR. ADT and Orders then flow to STAR in the early morning hours during periods of low activity.
- Works with or without an Enterprise Master Patient Index (EMPI).
- Results are posted back to the EMR.

ClinStar’s browser-based user interface:

- Serves as a communication tool to office personnel regarding the status of registrations and orders in the clinic interface.
- Provides a vehicle to verify patient registration and order information.
- Alerts registration personnel to data errors and omissions and enables them to enter missing data and correct processing errors.
- Provides flexibility in scheduling orders and feedback during the automated STAR registration and order entry process.

Shown below is a diagram of the ClinStar workflow:
ClinStar Workflow

1. Patient arrives at clinic or physician office

2. Patient arrives at hospital for outpatient diagnostic testing

3. Click Process button

4. Boston Workstation Enters Registration and Order into STAR
   - HL7 ADT Message (includes EMR MPI# and Star MR#; store Star MR# as alias)
   - HL7 Order Update

5. ADT and Orders flow into applications
   - HL7 Lab Result
   - HL7 Radiology Result

6. Results flow back to Physician EMR

ClinStar Application (MS SQL Server) with HL7 module
**Browser-Based User Interface**

The Main Menu has two levels of detail: patient registration information and order information:

- Patient registration ➔ Grey background
- Orders ➔ Blue background (initially hidden)

To view the interfaced orders that have been placed on a particular clinic visit, click the **button** next to that visit.
**Status Buttons**

On the right are three status buttons that indicate the status of patient registrations and orders.

The first button is either **blue (●) or red (●●).** Blue indicates the patient registration or order is ready for processing. Red indicates there is a problem with the patient registration or order. ClinStar enables the user to view and correct errors.

The middle button indicates the patient registration or order is being entered into STAR. During processing, this button is **orange (●●).**

The last button turns **green (●●●) when processing is complete.** The patient account will remain in view until the next day, or longer if orders have not yet been processed for this clinic visit.
Mapping Tables and Correcting Errors

ClinStar features mapping tables for insurance, provider numbering, etc. and provides the ability to edit data from the physician EMR that would cause an error in STAR.

Users can correct errors without contacting IT. Shown below is a sample screen – just click Fix... to bring up the Verify Registration Details page.

After correcting the errors, click on the Handled button.