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RWJBarnabas HEALTH

## Epic-MUSE Integrated Workflow for EKGs – Talking Points

This document describes the major impact areas in the fully integrated Epic-MUSE workflow required to *order, perform, result and bill EKG studies*. To accomplish complete clinical documentation and automated billing, staff and physicians will be working in two systems, Epic and MUSE. The talking points are intended to inform users about essential process dependencies to facilitate adoption of best practice workflows and aid in troubleshooting when required.

**Exhibit 1.** Epic-MUSE EKG workflow with key impact areas when tests are performed prior to order entry.
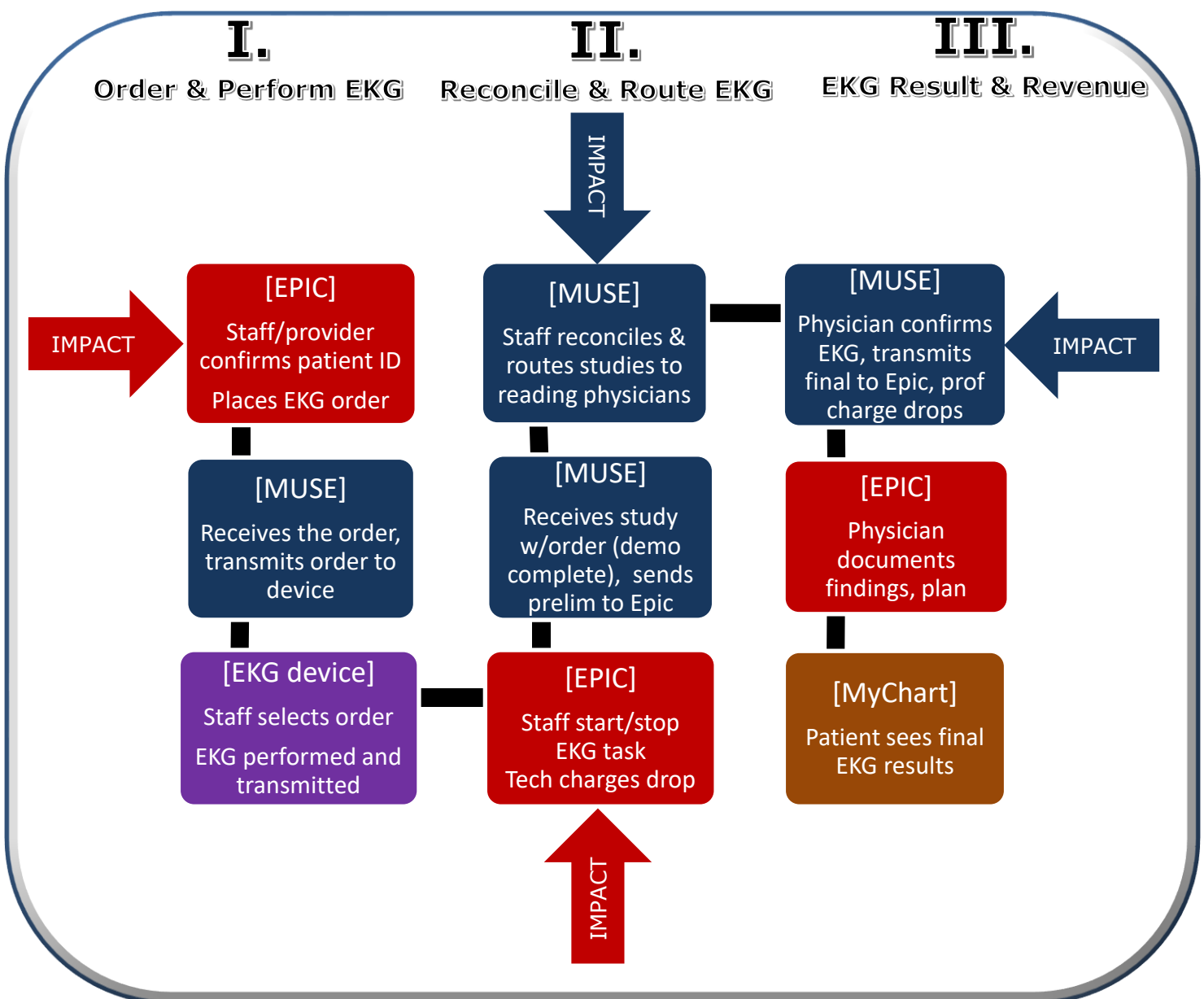
## I.    Confirm Patient ID, Enter Order in Epic, Perform EKG on Device

**Impact:** Staff and providers who order EKGs in Epic

1. **The EKG workflow is ORDERS DRIVEN.**  Every EKG must have an order to activate the integration between Epic, MUSE and the EKG device as designed.

2. **There are specific requirements to enter a proper EKG order in Epic.**

   a. Patient is registered in Epic
   b. 12-Lead EKG order is selected
   c. Test is "Ancillary Performed"
   d. Current status (not future order)
   e. User permissions allow order creation and submission

3. **EKG Order Requirement:**  A standalone 12-lead EKG order, i.e., not part of an order set, is required for Emergency Department use. EKG orders could also be part of an order set.

4. **Best Practice EKG Acquisition Workflow:**  When an EKG order is placed in Epic in advance, the user will be able to select the order on the EKG device, perform the EKG and the study will transmit to MUSE with the order attached. This eliminates the effort of manual data entry and guards against errors.

5. **Impact of Ordering Sequence on EKG Workflow:**  Emergency EKGs prior to patient registration, STAT EKGs and 12-lead EKGs acquired from bedside monitors are the exception scenarios when EKGs are performed prior to order entry.  In these cases, timely order entry in Epic is required to guard against delays in reading final results and charge capture. These exceptions create workflow variances, increased staff workload and the potential for revenue loss.

   **IMPACT**

6. **Printing EKGs for Clinical Decision Making:**  Paper copies of emergency and STAT EKGs may be needed to enable rapid reading to rule out acute cardiac events. These paper copies are subject to the routine scanning workflow and should be filed in an appropriate folder. This same tracing will also appear in Epic as the preliminary and final EKG result.

## II.    Start/End Task in Epic, Reconcile & Route in MUSE

**Impact:**  Staff who reconcile EKGs in MUSE, technical charge capture

7. **Staff are working in two systems:**  When an EKG order is entered, staff are able to click on the Complete ECG hyperlink (see below) in Epic. Technical charges drop in Epic when the EKG task is completed. With an order attached, EKGs will appear in MUSE in "Demographics Complete" status.  Staff who work in MUSE will route all EKGs in "Demographics Complete" status to the reading

physician/group.  In this status, the EKG will automatically be sent to Epic as a preliminary result. Both the waveform and the narrative preliminary result will appear in the Chart Review/Cardiology tab in Epic.

## Outpatient Epic view



## Inpatient Epic View

❑ **Workflow Deviations:** When an EKG is performed prior to order entry, the workflow is rearranged and additional steps are required. Increased work effort and time are needed to monitor MUSE, enter missing orders in Epic, start/end the EKG task for charge capture, then reconcile (link) the order to the study in MUSE and route to the reading physician. In the delayed order scenario, the workflow deviation impacts reading physicians.  Delays/gaps in final results confirmation and the potential for lost revenue is especially magnified in the ED setting.

8. **Impact of EKG Workflow Changes on Staffing:** Staffing models in Cardiodynamic and Emergency Departments must accommodate ongoing monitoring of EKG studies in MUSE and timely completion of the orders-driven workflow.  Ease of access to both Epic and MUSE must be assured.

**IMPACT**

## III.  Confirm EKG in MUSE, results to Epic, professional charge drops

**Impact:**  Physicians who read EKGs, professional revenue

9. **Best Practice EKG Resulting Workflow:**  As with staff reconcilers, reading physicians will work in both MUSE and Epic. In MUSE, the physician will access their assigned "in-basket" where they will see a worklist of all EKGs assigned for reading. The reading physician will complete the final EKG interpretation in MUSE; the final result will be routed to Epic and the professional charge will be sent to Epic for billing. The physician will document clinical findings in Epic. Patient records will be visible in MyChart, the patient's health record portal.

**IMPACT**

10. **Impact and Variations in Routing:**  Physicians are dependent on timely routing of EKGs to their in-baskets in MUSE. In the busy New Brunswick ED, any EKG with an order will be auto-routed to a group in-basket to enable timely interpretation. All other EKGs must be manually routed in MUSE to the reading physician/group. Again, a key objective is for every EKG to have an order before the EKG is acquired, or as soon as possible afterwards, to facilitate "Demographics Complete" status, routing, reading and revenue capture.

**IMPACT**

11. **Exceptions to Reading in MUSE:** Providers who do not read EKGs yet have a treatment relationship with the patient (CRNP, PA, NP, resident) may view the preliminary study in Epic and document clinical impressions accordingly. Mid-level providers will not confirm EKGs in MUSE.

12. **Support:** For issues with orders transmission to MUSE, application (computer software) or workflow issues, open a ServiceNow ticket for the respective "clinical application" and assign it to the Epic or MUSE team.

## Learn More

**Learning Home Dashboard**: First attempt to find these documents on your commonly used Learning Home Dashboard.  If they are not found, access the **Cardiology Provider Learning Home Dashboard** or **Non-Invasive Cardiology Learning Home Dashboard.**

Remember – Tip sheets on the Learning Home Dashboard.

The changes identified in this document are significant to your hospital. Please reference the following:

Tip Sheets

- MUSE Reconciler AMB Tip Sheet 2021.08.01
- MUSE Physician OverReader Tip Sheet FNL 2021.09.17
- How EPIC Connects to MUSE and EKG/Stress Devices
- MAC2000 workflow review
- MUSE Physician Overreader + Switching between sites workflow
- MUSE Reconciler workflow review

Cardiology Guides

- MUSE Guides
    - MUSE Access
    - MUSE v9 Physician Enhanced Editor Guide
    - MUSE Physician Overreader
    - MUSE Reconciler Tip Sheet
    - EKG – MAC2000 Tip Sheet

Note that the information on the Learning Home Dashboard is current.  If you download or print a copy of the Tip Sheet, it may not reflect the most up to date information. Make it a habit to view Tip Sheets within Epic frequently.

## Remember

### Playground

Once you complete your training, and using the login information provided in the classroom via your workbook, you may access the Epic Playground environment.  Use the general sign-on information (provided by your trainer) to access this environment to continue your education, and practice the new Epic workflows.

Focusing on the changes identified in this document will help your hospital in the successful implementation.

As part of the Playground environment, you will have access to the Learning Home Dashboard and can access all Tip Sheets to learn about other changes.

## You Can Also

### View the Demonstrations

A demonstration was held and recorded for this workflow. The demonstration is loaded to NetLearning and the user can assign it to themselves. The names of the Demos are:

1. Change Management ECG Best Practice Demo
   ❑ This demonstration will walk the user through the Best Practice recommendation. It uses narration and a slide deck with images.
2. Change Management ECG Live System Demo
   ❑ This demonstration allows the viewer to watch the system usage "live." It uses both Epic and Muse, and is narrated throughout.
3. Change Management ECG Talking Point Document Review
   ❑ This demonstration talks the viewer through the more significant changes and shows the Talking Point document that should be distributed prior to the Epic Go Live.

**Questions** can be sent to your site and department Leads. If they cannot answer the question, you may submit a question to the Training Team through the ServiceNow process.

How to:

- Pre-production: Contact the Service Desk and submit the question to the Training Team via ServiceNow ticket.

- In production: from the patient chart or the screen, you have a question on, submit a ticket via Get Help within Epic.
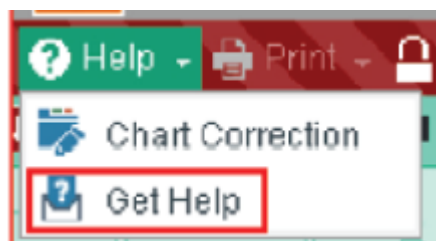


**URGENT** or immediate assistance should be requested via the Service Desk. They will assist you in triaging the issue and prioritize your ticket accordingly.