

TABLE 10

- 5:00** Future Providers OSCE Experience at Hennepin Healthcare
- 5:10** Improving Detection of Communication Failures through Automation of the COMPASS Reporting Tool
- 5:20** Method of Detection for Breast Biopsy
- 5:30** Optimizing Length of Stay by Reducing Emergency Department Boarding Time
- 5:40** Streamlining Ordering Provider Notification Through Automation of the Vocera Paging System



Future Providers OSCE Experience at Hennepin Healthcare

Reza Chaudhry, Pradnya Ingle

Future Providers OSCE Experience at Hennepin Healthcare

Muhammad Reza Chaudhry, MD/MPH, Pradnya Ingle MBBS, Sumedha Kashyap MBBS, & Sravya Vuppalapati MBBS
Hennepin Healthcare Family Medicine Residency Program, Minneapolis, MN



Project Background/Goals:

- In 2022, the ACGME proposed new requirements for family medicine (FM) programs to ensure that residents gain experience in providing care to underserved populations with emphasis being placed on the unique social and geographic contexts of the communities being served through quality practice experience.
- This initiative aligns with the Minnesota Department of Health's initiative on delivering culturally appropriate healthcare to refugee and underserved populations.
- FM resident in partnership with community members will design and deliver high-fidelity simulations at Whittier Clinic which is located within the most diverse neighborhood of Minneapolis.
- This quality improvement project will explore the personal and professional development of interns through educational training during core conferences and with scoring data generated through summative OSCEs at a level 1 trauma/safety net hospital.

Methodology:

- SHARE Workshop 1:

Two-hour training of standardized patients (SPs) on SHARE communication tools (Modules 1-4) and OSCE role review at Whittier Clinic. Feedback from the training will be collected using QR code-linked surveys, and results will be shared at core conference with faculty and residents.

- OSCE Prep:

Pre-brief and debrief sessions for PGY-1 residents during core conference time to prepare them for the first OSCE event.

- OSCE Event 1:

A two-hour event at Whittier Clinic. SPs, faculty, and resident will complete checklists and SOAP notes. Feedback from learners will be collected using QR code-linked surveys.

- SHARE Workshop 2:

Two-hour training session for SPs, focusing on refining communication tools and OSCE roles. Feedback will again be collected via QR code-linked surveys.

- OSCE Event 2:

A two-hour simulation at Whittier Clinic following the same format as the first event. Learner feedback will be collected, and SOAP notes/checklists analyzed.

- Joint session review:

Data analysis of checklists and survey data (ii) Discuss results with Physician Mentor and curriculum faculty (iii) Present findings to local and national meetings in 2026 (iv) manuscript writing and submission to peer-reviewed FM & SSH journals

Outcomes:

- Community engagement and building educational partnerships with underserved communities.
- Continued development of training materials by interns based on AHRQ toolkits to enhance communication techniques taught by FM curriculums.
- Overall goals are to establish ongoing improvement in patient outcomes and satisfaction through these cultural



Interested in helping?





Improving Detection of Communication Failures through Automation of the COMPASS Reporting Tool

Connor Nelson

Macro - Automation of the COMPASS Reporting Tool

Connor Solan, MD
Logan Thomas, DO
Connor Nelson, DO

Introduction

Completing a COMPASS report is an arduous process during a busy after hours Radiology call shift. A COMPASS report requires 31 mouse clicks and on average 6 minutes of active data entry to complete.

Due to this, the frequency of communication failures may not be accurately reported.

Methods

The macro scripting software AutoHotKey version 2.0 was used to automate the web-based submission of a Compass report.

In order to fill out the 15 required fields the window client area was standardised within the script. An inbuilt Graphical User Interface (GUI) containing the modifiable accession number captured from the PowerScribe window text was used. The XY coordinates of the fillable fields were then mapped with individual macros to specify the appropriate selection. Pre-written text populates the Description field containing the accession number.

Results

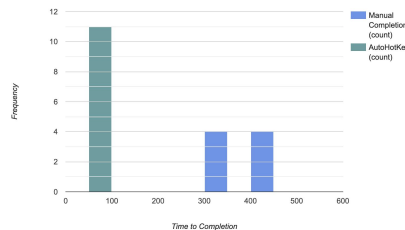
The final runtime of the script was between 40 and 45 second and required only three mouse clicks to complete.

Final Script:

2-3 Clicks  90%

45s Runtime  $\frac{4}{5}$

COMPASS Automation



Barriers To Use:

- Portable USB setup
- Admin approval

Script file LINK



r/AutoHotKey





Method of Detection for Breast Biopsy

Jacob Stern

Method of Detection for Breast Biopsy

Jacob Stern, MD, Jessica Kuehn-Hajder, MD, Noelle Hoven, MD, Sara Veldman, MD, An Ly Church, MD
Department of Radiology, University of Minnesota

Abstract

Method of Detection (MOD) is defined as the first test or clinical event to trigger the workup leading to the histologic diagnosis of cancer. This important piece of information will improve understanding of how breast cancer is diagnosed. This quality improvement project constructed a system for the Breast Division of the Department of Radiology at the University of Minnesota to capture this information.

Through the introduction of a universal template and standardized terminology, we have improved capture of MOD in breast biopsy notes from 28% to 82%. As we continue to utilize our template and customize our process to meet our departmental needs, we will continue to improve data capture.

This system will facilitate future research at the University of Minnesota. Through the implementation of this project, we have moved our Breast Radiology Division to the forefront of this important update coming to our field.

Introduction

Breast radiology is key to breast cancer identification and treatment. Breast radiology interpretation has been standardized by the American College of Radiology through the implementation of the Breast Imaging Reporting and Data System (BI-RADS)¹. This system describes and defines common imaging findings and categorizes them to facilitate follow-up and management, ensuring a high standard of care for all patients across the United States. BI-RADS is updated regularly to ensure standards remain up to date¹. This project was designed to implement a change in our system in anticipation of a coming BI-RADS update^{2,3}.

Method of Detection (MOD) is defined by the ACR's Commission Screening & Emerging Technology Committee as the first test or clinical event to trigger the workup leading to the histologic diagnosis of cancer⁴. This information is useful as it will facilitate future research into the contribution of mammography in breast cancer detection^{5,6}. This research could further our understanding of different imaging techniques and differences in detection between different types of breast cancer. It could also help guide future screening and management recommendations^{5,6}. It is suggested to document the MOD on radiology biopsy procedure notes.

Materials/Methods

This project was conducted by the Department of Radiology including a collaboration between clinical staff, trainees, and IT support staff. We utilized the Journal of the American Academy of Radiology and the Journal of Medical Screening to review related literature. We implemented our template through the University of Minnesota/Fairview picture archiving and data system (PACS) Intellispace and PowerScribe. These systems were also used to pull MOD data. Collected data was analyzed through Microsoft Excel.

Our UMN Institutional Review Board deemed this study a quality improvement project and exempt from full IRB review. We conducted an analysis of current institutional practice regarding MOD data. In collaboration with our PACS administrators we developed a dictation template that utilized standardized terminology that aligned with the ACR's proposed options. We then conducted a repeat analysis of MOD data and identified areas for future improvement and research.

Data was collected on two months (August 2024 and March 2025) of breast biopsy procedure notes conducted at the University of Minnesota/Fairview Health in our Clinic and Surgery Center and at our Maple Grove Clinic.

Our template includes the following categories:

Category S initially detected with image-based screening
Sabi—screening DBT with synthetic or full-field 2-D
Sma—screening 2-D mammogram without any DBT
Sus—screening ultrasound (automated or handheld)
Smr—screening MRI
Scan—screening contrast-enhanced mammogram
Snuc—screening nuclear medicine breast examination
So—other screening modality, such as screening breast CT, etc.

Category P initially detected by patient or provider
Pst—first detected by patient by self-examination or symptom, such as pain
Prp—first detected by provider by clinical examination
Pfp—not possible to determine if detected by patient or provider

Category N not detected by patient or provider or with image-based screening. Example: liver metastasis detected by abdominal ultrasound prompted by abdominal pain and abnormal liver function tests.

Nci—Incidentally detected on non-screening CT.
Nmr—Incidentally detected on non-screening MRI.
Npet—Incidentally detected on PET.

Unknown: it is impossible to determine what triggered this workup.

Results

Breast biopsy notes were reviewed from a sample month before and after implementation of our MOD template. The number of notes with a recorded MOD increased from 28% in August 2024 to 82% in March 2025.

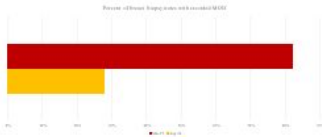


Figure 1. The percent of breast biopsy notes with recorded Method of Detection increased from 28% to 82% after implementation of our MOD template.

The MOD was most often recorded using the template we implemented, although 19% of the time the radiologist chose to type a free text entry in their note. While free text entries allow the radiologist greater flexibility, they also complicate analysis.

When MOD was recorded, was our template used?

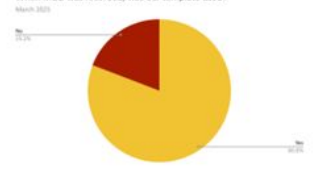


Figure 2. The template was implemented in approximately 81% of breast biopsy notes for which an MOD was recorded.

Special thanks to Kristi Isberg, IT support team.

For the biopsies in which an MOD was recorded in March 2025, screening mammography was the most common (dark blue), with patient symptoms (dark green) as the second most common MOD.

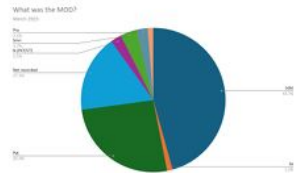


Figure 3. MODs recorded in breast biopsy notes in March 2025.

Conclusion

MOD is an important piece of clinical information that will soon be part of the revised ACR BI-RADS manual medical audit. By implementing a process now at our institution, we place ourselves at the cutting edge of this change. Through early review of our process, we can help guide the nation into this new change. Our first attempt to capture this data has been largely successful, with a dramatic increase in MOD capture in breast biopsy notes. MOD data will allow further research into the contribution of mammography in the detection of breast cancer.

Recommendations

Future improvements include:

1. Revise categories in our template to better reflect practices at our institution and improve template utilization rate.
2. Utilize MOD data to evaluate the success of mammography screening at our institution.
3. Analyze MOD data to evaluate differences among different patient populations and cancer types.
4. Analyze our institutions MOD collection method to help revise ACR BI-RADS policies.

Sources

1. D'Orsi CJ, Sickles EA, Mendelson EB, Morris EA, et al. ACR BI-RADS Atlas, Breast Imaging Reporting and Data System. Reston, Virginia: American College of Radiology; 2013.
2. Eby PR, Davidson S. Expanding Cancer Registries to Capture Method of Detection. Journal of the American College of Radiology. 2024;21(5):451-454. doi:10.1016/j.jacr.2023.08.008
3. Zou A, Patel RK, Khurana A, et al. Breast Cancer Method of Detection 5-Year Outcomes. JAMA Network Open. 2024;7(1):e232226. doi:10.1001/jama.2023.2226
4. Rogers CD, Shroyer SE, Shroyer RB. Including the method of detection for breast cancer in the Surveillance Epidemiology and End Results database: a long overdue. J Med Screen. 2024;31(1):2. doi:10.1177/096914222310711



Optimizing Length of Stay by Reducing Emergency Department Boarding Time

Daniel Mansour

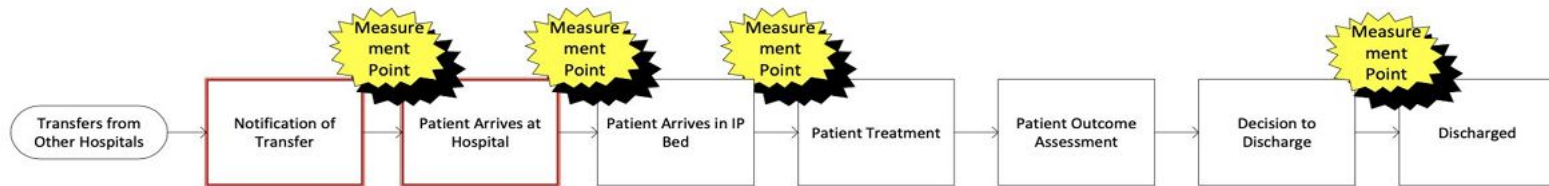
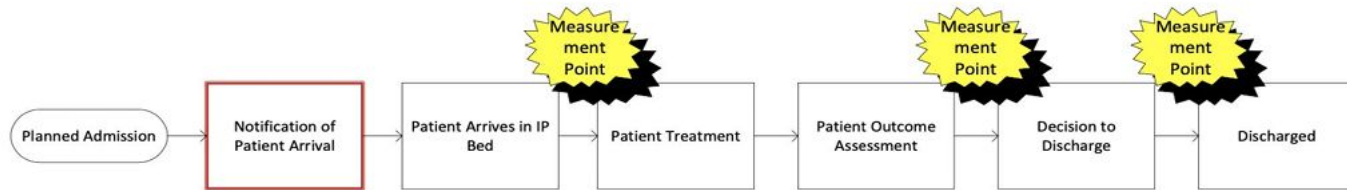
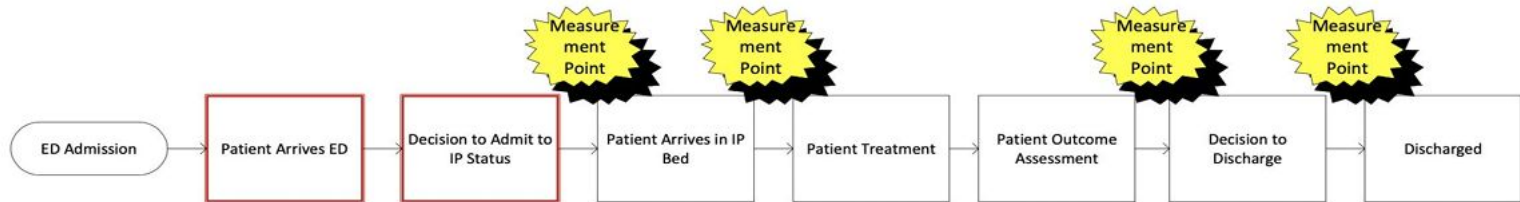


Length of Stay Value Stream Map

Wesley Palmer Jr., Austin James,
Daniel Mansour, Stephen Martin

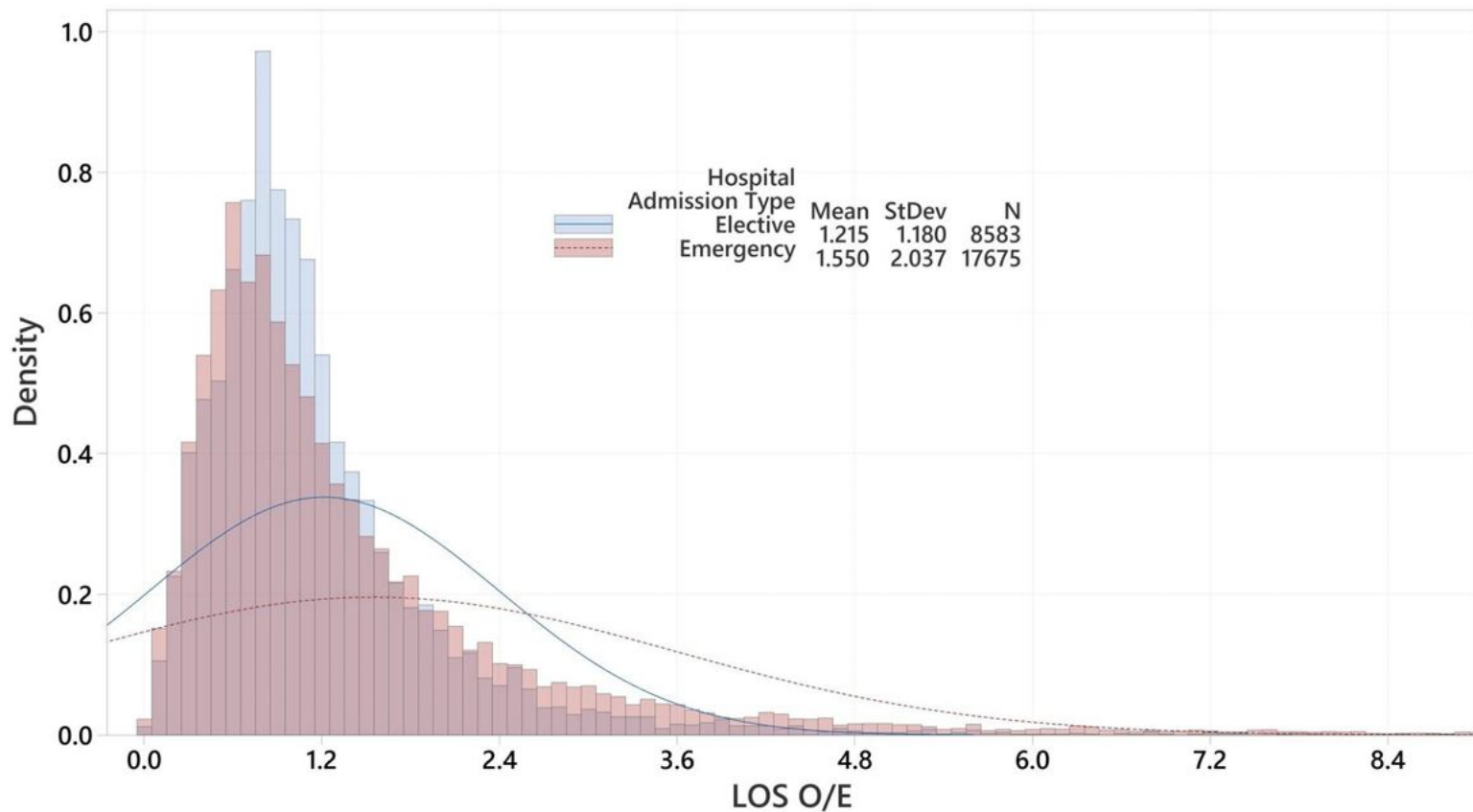
The Problem

- Hypothesized variation in boarding time each patient experiences depending on their method of entry to the hospital
- Boarding is when a hospital lacks bed availability and a patient is forced to wait in an emergency room or other location until there is an inpatient bed available.
 - Pts enter that status when its been 4 hours or more according to CMS.
- Patients enters one of three ways
 - ED
 - Planned Admissions
 - Transfers from other hospitals/facilities

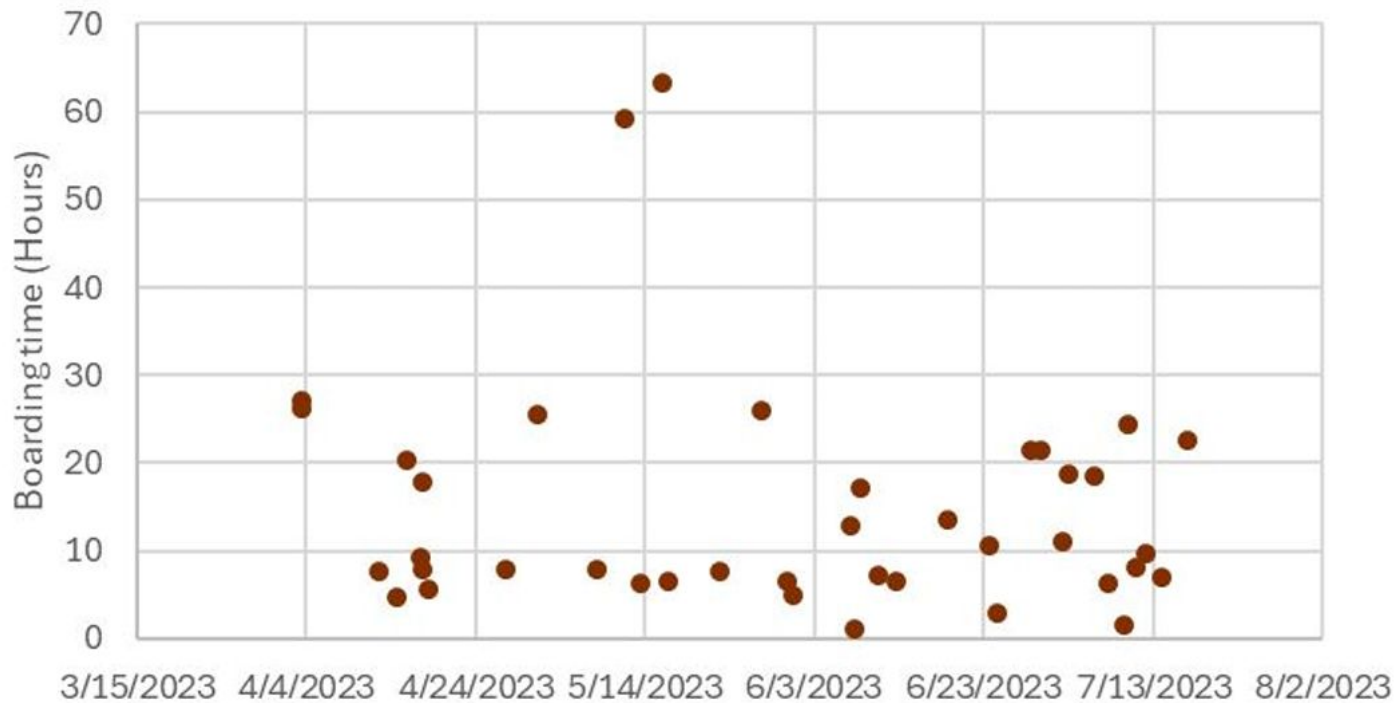


Histogram of LOS O/E

Normal



Boarding time



Implementation Ideas

Communication

- Improve communication channels between ED staff, inpatient units, and hospital administration to facilitate timely updates on bed availability and patient status.

Predictive Analytics

- Utilize predictive analytics models to forecast ED admission volumes, identify peak periods, and allocate resources accordingly to help prevent boarding.

Bed Capacity Alerts

- Implement automated bed capacity alerts that notify ED staff and hospital administrators when bed availability reaches critical levels.



Streamlining Ordering Provider Notification Through Automation of the Vocera Paging System

Connor Nelson

Macro - Automation of the Vocera Paging System

Connor Solan, MD
Connor Nelson, DO
Logan Thomas, DO

Introduction

Communicating with treatment teams in a timely manner is an essential part of Radiology practice. The Vocera paging system is used to contact ordering providers at UMN after hours.

During a busy call shift, manually completing a page both interrupts and detracts from a high volume and complexity of imaging interpretation that must be performed.

Methodology

AutoHotKey Version 2.0 was utilized to automate the web based vocera paging system.

After standardization of the client window, an editable graphical user interface (GUI) is utilized to display the paging contents, recipient, and subject. The users callback and name are inserted into the message body after storage in a config file on a removable drive. The PowerScribe window text is queried for the recipient, subject, and pertinent findings if available.

Keystrokes are sent to the fillable field coordinates with insertion of the GUI text via the clipboard.

Results

Average Manual time to completion: 55s
Manual Vocera Number of Clicks: 14

AutoVocera time to completion: ~30s
AutoVocera Number of Clicks: 6

Automation of the Vocera paging system minimizes a frequent time-consuming task.



Web Console

CS Connor Solan | Logout

Cancel New Secure Text

To: [Search]

Subject: UMMC: Message or Call

Click to attach patient info

MESSAGE

Message: Communication - Provider Message or Call Requested

Clinical Question or Notification Reason: [Text Area]

Conversation Expiration: Never 2 min 5 min 10 min Custom

Deliver to on campus users only

MESSAGE SETTINGS

Priority: Normal High Urgent

Notify if no one has responded within [] minutes

Response Expiration: Never 2 min 5 min 10 min Custom

RESPONSE OPTIONS

1: [Text Area]

Send

Vocera Messaging 5.9.0.3130 © 2023 Vocera

HELP

Select Patient

My Patients [Search]

MY PATIENTS

Select Patients

My Patients - Current Site ✓

My Patients - All Sites

All Patients

No Patients Found

OK Cancel

Script file LINK



Barriers to Implementation

- USB / Config Setup
- User Privileges



r/AutoHotkey

