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DESCRIPTION

At Humber River Health (HRH) an opportunity was identified to digitize existing processes regarding rhythm strip interpretation and record keeping. Traditionally at the end of every shift, nurses would print the rhythm strips for all of the patients in the Intensive Care Unit (ICU) and all patients on telemetry monitoring. When the patient was discharged, the printed rhythm strips would be scanned into the Electronic Medical Record (EMR) as part of the patient's chart. An opportunity was identified to digitize this process by transmitting the rhythm strips as PDFs to the EMR directly from the telemetry central stations.

OBJECTIVE

To implement a PDF to EMR process for rhythm strips utilizing a systematic approach to quality improvement.

ACTIONS TAKEN

A Plan-Do-Study-Act (PDSA) cycle supported the digitization of the rhythm strips transmission. Highlights of the key initiatives undertaken included:

- Held frequent team meetings with internal and external stakeholders.
- Creation of the staff education plan and materials.
- Developed EMR documentation changes.
- Developed an auditing system
- Implemented changes based on auditing and observations to ensure compliance with updated practices.

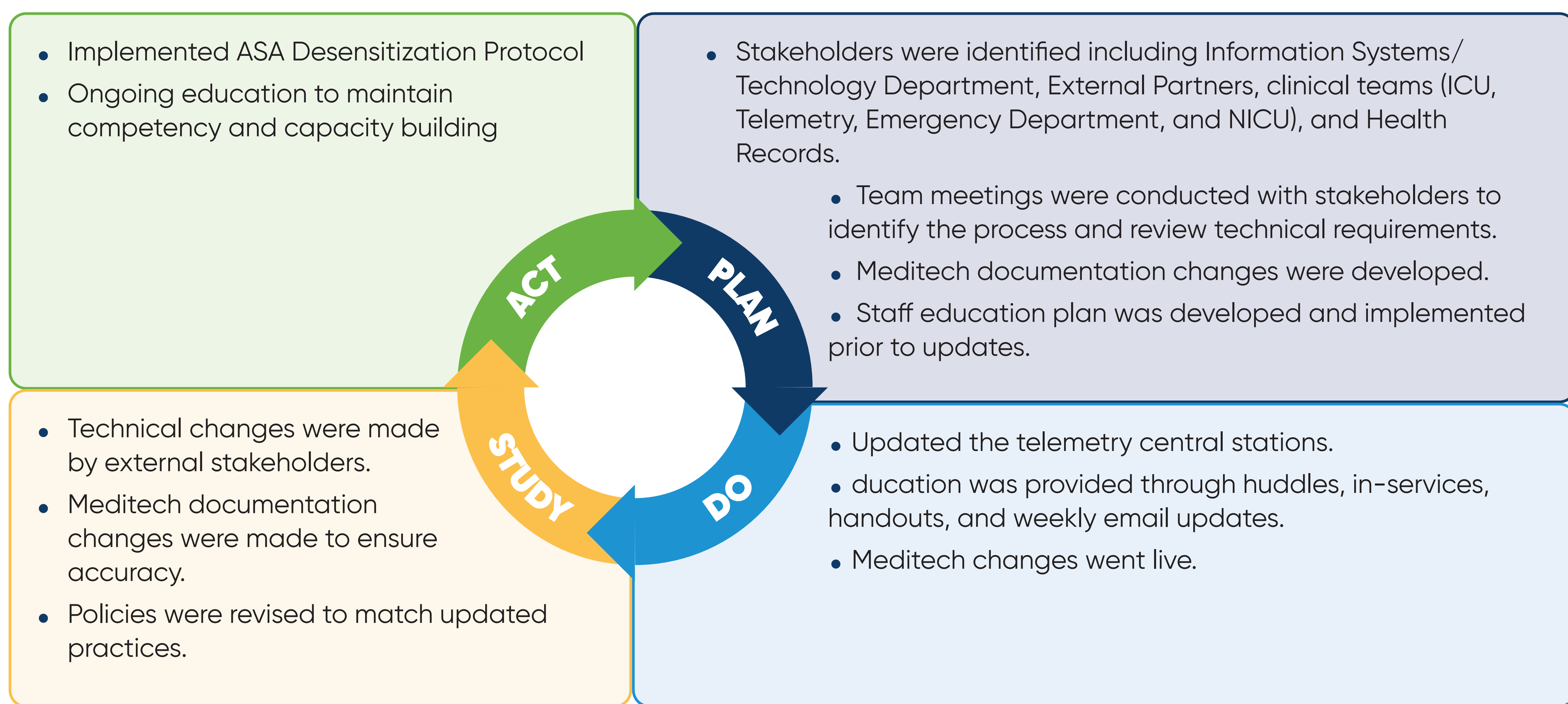


Figure 1. PDSA Cycle.

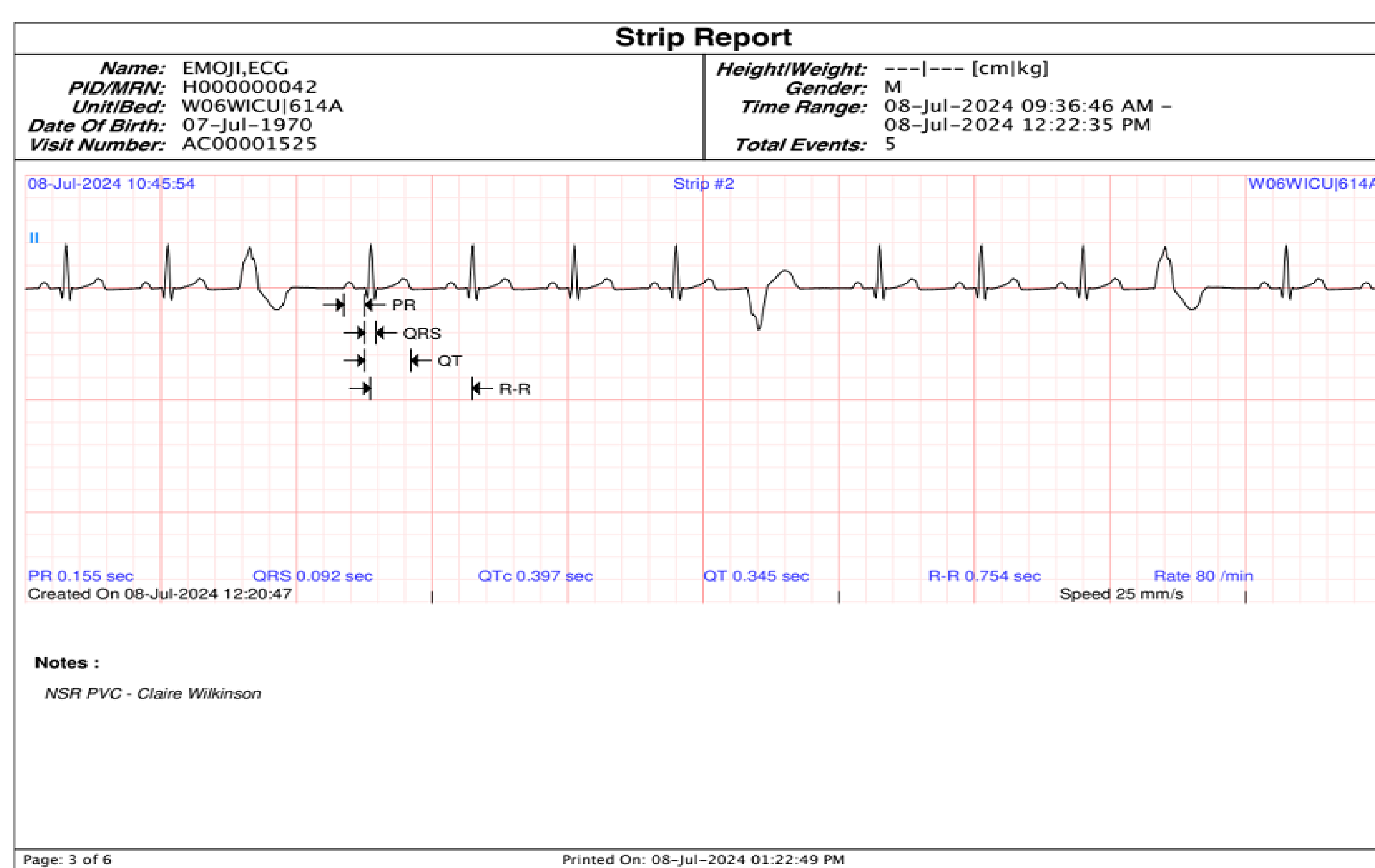


Figure 2. Example of PDF transmission of the rhythm strip.

Humber River Health Meditech Update Newsletter
ECG Assessments, Telemetry and Annotations Sent to Meditech

Go-LIVE Date: August 20, 2024

Summary: Currently, CARESCAPE events and ECG monitor interpretations are captured on the GE monitors, printed and placed in the patient's physical chart. Post discharge, these printouts are then scanned into the patients chart in Meditech. Going forward, ICU and Telemetry nurses will capture cardiac events/strips and all annotations on the CARESCAPE monitor, review and transmit them to Meditech. Changes have been made to the ECG Assessment/Telemetry documentation to align with these updates and reduce duplication of documentation.

Note: Nursing and physicians will be able to view all transmitted strip reports for inpatient units under Scanned Forms of the Patient Care menu. This change will be Retro-Active and will impact existing Reports location also moving them from the Reports Tab to Patient Care menu.

Meditech Documentation Updates:

1. **ECG Assessment/Telemetry section** for documentation is embedded in the following assessments:
 - ICU Admission Assessment
 - 7E ICU Admission Assessment
 - ICU Physical Assessment
 - Telemetry/Implanted Device Assessment
 - Telemetry (orderable intervention)

GE Central Station Upgrades
On September 18th, the ICU went LIVE with the changes to GE central stations and PDF to EMR transfers!

Old Central Station



New Central Station



Figure 3. Examples of educational material created and disseminated.

SUMMARY OF RESULTS

Implementing a PDF to EMR process for rhythm strip interpretation within the ICU and telemetry units at HRH streamlined workflows and eliminated paper-based rhythm strips leading to a reduction in waste. Utilizing a systematic approach to implement the change ensured an agile rollout and provided the opportunity for ongoing stakeholder engagement and improvements. Through the success of this initiative in the ICU and the learnings obtained, this process can be leveraged to assist other departments at HRH.

LESSONS LEARNED

By utilizing a systematic approach involving frequent engagement with key stakeholders, developing staff education and implementing an audit process, the rhythm strips interpretation process was successfully digitized.

