Safety Notice 017/18

Amended - Printing the correct ECG for patients

27 November 2018

Distributed to:

- Chief Executives
- Directors of Clinical Governance
- Director Regulation & Compliance Unit

Action required by:

- Chief Executives
- Directors of Clinical Governance

We recommend you also inform:

- Directors of Medical Services
- Directors of Nursing and Midwifery
- Directors of Emergency Department
- Directors of Cardiac Services
- Biomedical Engineers
- Department Heads
- Nurse Unit Managers

Expert Reference Group

Content reviewed by:

- Biomedical Engineering Group
- Office of the Chief Health Officer
- Agency for Clinical Innovation
- Emergency Care Institute
- Director Patient Safety

Clinical Excellence Commission

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Review date

November 2019

Background

A review of incidents in NSW has identified numerous instances where printed ECGs have been assigned to the wrong patient. While these incidents have not reported any significant outcomes for patients, there is a potential for serious adverse events to occur. These incidents are multifactorial and often relate to labelling errors. A particular risk with GE Healthcare MAC ECG machines has been identified by Queensland Health. Features of the GE Healthcare MAC ECG machines create a human factors risk in which staff can print and analyse ECGs that have been stored from the previous patient rather than the current patient.

Queensland Health recently identified 42 similar incidents reported between 1 January 2014 and 30 June 2018; with 11 incidents having a direct effect on the treatment prescribed, with one patient receiving thrombolytic medication when it was not clinically indicated.

Using GE Healthcare MAC ECG machines

GE Healthcare released an addendum to their standard operating manual for MAC ECG machines, "Printing the wrong ECG for a patient", dated 2 December 2016 [See attachment 1].

- ECG machines often do not prompt for patient details to be entered, with the date /time stamp being the only identifiable feature printed on the ECG.
- Selecting "Print" or "Copy" on GE MAC ECG machines will print the last stored ECG. This may not belong to the current patient.
- To obtain an ECG of the current patient, the operator must press 'ECG' or 'Rhythm' or 'Start', depending on the model.

Actions for clinicians using GE MAC ECG Machines

- Always check the date/time stamp on the report to ensure it matches the date and time when the ECG was acquired.
- Obtain corroborating clinical data during patient assessment.
- Where possible/practicable, enter each patient's information into ECG machine.
- Push 'Next Patient' or 'Main Menu' after ECG is complete. This prevents previous patient records being accessed accidentally.
- Ensure all machines are operated according to manufacturer's instruction.

Actions to ensure correct ECG for all patients

- Check patient details with identification band when obtaining ECG, plus the date and time of acquisition when ECG is printed.
- Where possible, enter patient identifiers into ECG machine when obtaining ECG
- If unable to enter patient identifiers into machine, apply patient identifiers immediately to printed ECG.
- Check to ensure correct patient record prior to filing printed ECGs.

Suggested actions by Local Health Districts/Networks

1. Disseminate this Safety Notice to all staff who use ECG machines, particularly GE MAC ECG machines.
2. Consider placing a label on ECG machines to remind staff of the correct procedure to record
3. Consider in-service for staff who operate ECG machines to highlight important points.
4. Report any incidents of incorrectly identified ECGs in the Incident Information Management System (IIMS), and any equipment faults to the Therapeutic Goods Administration (TGA).

Made Obsolete September 2022 MAC 2000 Operators Manual available from:
https://www.bioclinicalservices.com.au/ge-healthcare/mac-ecg-analysis-systems/mac-2000-operators-manual-rev-s-dec-2020