



Patient Safety Alert

Stage One: Warning

Risk of associating ECG records with wrong patients

4 March 2014

Alert reference number: NHS/PSA/W/2014/003

Alert stage: One - Warning

ECGs are routinely performed to diagnose cardiac problems and there are no risks associated with the test itself, however, there is a risk of associating ECG records with wrong patients leading to misdiagnosis and incorrect treatment.

A patient safety incident has been reported recently whereby the 'copy' button had been pressed instead of the 'auto/ start' button in error, resulting in a copy of the previous patient's ECG being re-printed. Staff did not immediately realise the error and labelled the ECG record incorrectly with the new patient's identifiers. The patient underwent an unnecessary procedure and had a further complication as a result.

Seventeen further incidents have been reported describing occasions where the ECG of a previous patient was re-printed. Causes were established in some cases and described as accidentally pressing the copy button (seven incidents) and not following user instructions (two incidents). Patients involved in these incidents did not suffer any harm but there was a risk of serious harm if treatment decisions had been based on wrong ECG records.

It appeared that several issues contributed to these incidents.

- Patient identifier - the default setting did not include the need to enter patient's identification details before being allowed to continue with the tracing.
- Poor design - the copy button and the ECG trace button are situated directly adjacent to one another on some ECG machines.
- Staff awareness - staff were unaware of the existence of the copy button and failed to follow user instructions correctly.

Accurate and complete patient identifiers on all test results are vital to ensure patient safety. Advice on the use of the NHS Number as the national identifier for all patients can be found at:

<http://www.nrls.npsa.nhs.uk/resources/patient-safety-topics/patient-admission-transfer-discharge/?entryid45=61913>

Actions

Who: All services that use ECG machines

When: As soon as possible but no later than
4 April 2014

- 1 Establish if there is a risk of associating ECG records with wrong patients in your services and if similar incidents have occurred.
- 2 Consider if immediate action needs to be taken locally and develop an action plan, if required, to reduce the risk of a similar incident occurring.
- 3 Disseminate this Alert to all nursing, medical and engineering staff who are using or maintaining ECG machines.
- 4 Share any learning from local investigations or locally developed good practice resources by emailing: patientsafety.enquiries@nhs.net

Supporting information

For more detailed information to support the implementation of this guidance go to www.england.nhs.uk/patientsafety/psa

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Technical notes

NRLS search dates and terms

The NRLS was searched on 07 February 2014 using the following search criteria:

- Incidents reported to the NRLS since 1st January 2008;
- Incident types reported as clinical assessment, documentation, medical device or other; and
- Incident reports containing the key words 'ECG' AND 'button' OR 'wrong' OR 'identical' in the free text field.

In total, 594 reports were identified and all were reviewed. In addition to the trigger incident, seventeen reports were found describing that the ECG of a previous patient was accidentally re-printed.

Literature review

Electronic literature search was conducted on the following databases: Health Management Information Consortium (HMIC), Medline, PsycINFO, British Nursing Index (BNI), Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Health Business Elite. Search terms were combinations of ECG, electrograph, button, mistake and error. Search was limited to publications between 2009 and February 2014 and in English language. The search yielded 298 references, none of which was relevant to the trigger incident.

Stakeholder engagement

This Patient Safety Alert was developed by Dagmar Luettel, Patient Safety Lead (medical devices), with advice from the MHRA and the NHS England Medical Patient Safety Expert Group (see www.england.nhs.uk/patientsafety for membership details) who fully supported the publication of this Alert.