Item: Failure of medical alarm systems using paging technology to notify clinical staff

General Information: There are numerous reports from VA and the private sector documenting the failure of medical alarm systems using paging technology to notify clinical staff of alarms or other critical clinical information. In many cases, alarms were not sent or receipt of the alarm was delayed for several hours.

Pagers have commonly been used in conjunction with telemetry or bedside physiologic monitoring systems. Within the VA, alarm paging systems are interfaced with products from several vendors (e.g., the Data Critical StatView now marketed by General Electric, the Ultraview Clinical Manager marketed by Spacelabs, and the Alert Dispatch marketed by Philips) and are deployed as standalone devices or integrated with physiologic monitoring systems. These medical alarm systems using paging technology are not designed or intended to be used as the primary method for alerting clinical staff of critical alarm conditions and are not approved for this use by the FDA. If the paging technology is used as the primary method of communication to alert care providers of critical clinical information, adverse events may occur.

Specific Incident: Several adverse patient events occurred in physiologic monitoring units (telemetry and ICU) where the paging system was used as the primary method of alarm notification. For example, in one case notification was delayed for a period of 10 hours for a critical cardiac arrhythmia.

Action: Complete the following actions by COB, July 16, 2004. If this date cannot be met submit the reasons why completion of actions is not possible, develop an action plan, and send it to your VISN Patient Safety Officer by COB July 16, 2004. Include with this report a compliance timeline and interim safety measures to meet the intent of JCAHO 2004 National Patient Safety Goal Number 6b “Improve the effectiveness of clinical alarm systems” until permanent solutions are in place.

1. Determine if your facility uses a medical alarm paging technology and confirm that alarm protocols classify the paging component as a secondary (or back-up) notification method and that it is not used as the primary alarm or communication method.
2. Verify that staff is assigned to monitor and manage physiologic monitoring systems and other clinically significant primary alarms when patients are being monitored.

3. Evaluate the physical layout of your patient care areas to determine where monitoring staff (monitor watcher) is needed. Perform this assessment as though you did not have an alarm paging system.

Note: If you use a medical alarm system using paging technology to comply with JCAHO Patient Safety Goal No. 6b compliance must be reassessed without the use of the paging system.

4. If a medical alarm system using paging technology is used as a component of the clinical staff notification process (i.e., secondary or back-up) there must be positive feedback to the initiator of the page that the message was received and responded to in a timely manner. This allows appropriate action to be taken to deliver clinical care if the page was not acknowledged.

Source: VISNs: 4, 12, 20, CEOSH, FDA, Manufacturer and NCPS

Contact: For additional information, please contact Bryanne Patail at VA National Center for Patient Safety at (734) 930-5890
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