Guidelines for Use of SensorCare Bed & Chair Alarm Systems

Guidelines to be used in conjunction with Trust Prevention & Management of patient falls policy
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1. **Introduction**

A patient who has a communication deficit or cognitive impairment, & who has been identified as at risk of falling, is at increased risk of falls due to the potential inability to call for assistance when attempting to mobilise.

The SensorCare bed/chair alarm system recognises when a patient starts to mobilise & this information is relayed to ward staff through the alarm system attached to the patient's bed or chair & via a pager worn by one of the nursing staff.

The system is not intended as a system to purely monitor a patient’s activity or act as a means of restraint.

1.1 **Reason for Development of The Guideline**

To ensure SensorCare system is considered for appropriate patients across all directorates.

1.2 **Methodology**

The guidelines were put together using information from SensorCare systems & from existing guidelines shared through the ProFaNE (Prevention of Falls Network Europe) web site.

Infection control consulted re cleaning guidelines.

The guidelines were presented to the falls management group & Matrons’ group for comments.

1.3 **Implementation**

Guideline to be implemented along with introduction of system, available from CERC, to all directorates in Trust.

Guidelines to be used when providing training on system.

In areas already using system to be introduced in update training & by departmental managers.

2. **Application of the Guideline**

Guidelines are for all staff working in inpatient areas where there are patients who may be at risk of falls.

3. **Objectives of the Guideline**

The guidelines aim to ensure that SensorCare alarm systems are used on the appropriate patients. To provide guidelines on the application & maintenance of the system.
4. Guideline Steps

**Criteria for selection of appropriate patients**

Patients who following assessment have been identified as being at risk of falls and:

- have poor mobility and require assistance but who, due to confusion or cognitive impairment, are unable to comprehend the need to call and/or wait for assistance and supervision
- this includes patients who have come into hospital with acute confusion due to an underlying medical cause & also patients who have a chronic cognitive impairment such as dementia
- consider also patients who have limited mobility and who experience nocturia or urinary urgency / frequency

The use of bed rails may, after assessment, be considered unsuitable for this type of patient as they could potentially create a greater risk of injury

**Consent**

- The use of the SensorCare system must be discussed with the patient and/or their relatives/carers to offer an explanation of the system and to ensure consent is obtained.
- This should be recorded in the patient record

**Assembly of the System**

**Bed System**

- For both fixed base and profiling beds the sensor panel should be placed on the bed base – even if more than one mattress is being used, for example an overlay mattress

**Ordinary Kings Fund bed**

Place the sensor panel (represented by blue box) lengthways

**Electric profiling beds**

Place sensor panel (represented by blue box) across non-moving section of bed base

Ensure that the cable link to the control unit does not interfere with the correct operation of the bed profiling mechanisms as it is run down to the foot end of the bed
• Any excess cable should be coiled & stored under the mattress in a safe manner
• The control unit should be attached to the foot end of the bed frame and the cable link inserted into the appropriate bed sensor socket
• If a pager system is being used ensure a transmitter is attached to the side of the control unit and a note taken of it’s number (where a multiple system is in use)
• Switch the control unit to **BED** and **ON**. Check the yellow ‘**low battery**’ indicator light is not on
• When the bed is empty the alarm should be clearly heard and the green ‘**unit on**’ indicator light to light will be flashing. (The alarm volume on the control unit can be adjusted). This is the effect of the patient having vacated the bed & is normal
• **This check must always be carried out prior to use**
• When the patient gets into bed the alarm will stop sounding and should only sound again if the patient leaves the bed
• If the patient is being assisted out of bed, the control unit should be turned off to avoid triggering the alarm. **Remember**, however, to reset the control unit to **on** when the patient goes back to bed

**Chair System**

• Place the small sensor panel on the chair base **beneath** the chair cushion or, if there is not a removable cushion, under a suitable pressure relieving cushion
• Never let a patient sit directly in contact with this panel as it will present a significant pressure area risk
• Place the panel centrally and widthways
• Attach the control unit to a suitable place on the back or side of the chair with the cables tucked safely out of the way
• Plug the cable into the appropriate chair sensor socket
• Switch the control unit to **CHAIR AND ON**. Check the yellow ‘**low battery**’ indicator light is not flashing
• When the chair is empty the alarm should be clearly heard and the green ‘**unit on**’ light will be flashing
• **This check should always be carried out prior to use**
• When the patient sits on the chair the alarm will stop sounding and will only sound again if the patient leaves the chair
• If assisting the patient out of the chair, the control unit should be turned off to avoid triggering the alarm. **Remember**, however, to reset the control unit to ‘**on**’ when the patient sits back down

**The System**

• In order for the pager alert to work a white transmitter must be attached to the control panel, failure to do this will mean that the pager alert will not work should the bed / chair alarm be activated
• The pager that accompanies the system should be worn at all times when a patient is being monitored
• A staff member needs to be allocated to carry the pager
• This can either be on a shift to shift basis or the pager can be transferred between staff more frequently during a shift
• The staff member allocated to carry the pager should attend if the alarm is activated
• Any other member of staff who hears the bed/chair alarm should attend if free to do so
• The transmitters are all numbered
• It is vital that the names of the patients using the system and the number of the transmitter (in areas where multiple systems are in use) are communicated at all handovers. The transmitter number should be clearly visible on the ‘white board’

**Using the pager system**
• Turn the pager **ON** by pressing and holding the > button for 2 seconds and release, it then vibrates and is on
• The pager will bleep and vibrate when it receives a signal from the transmitter, pressing the > button accepts the call and silences the pager
• The battery case is on the back of the pager, battery level indicator is on the display screen
• The pager uses AAA batteries

**Care and maintenance**

• Battery access is on the underside of the control unit (9v batteries)
• The whole unit, that is, sensor panels, cables and control unit should be cleaned after each patient use using minimal water and mild detergent

**‘Trouble shooting’**

• The alarm sounds when the bed or chair is **occupied**
  - check that the sensor panel is correctly positioned under the mattress or cushion
  - check that all connections are correctly assembled and not loose
  - look for any damage along the length of the cable
  - check that the bed / chair selector switch is in the correct mode for the function required

If the fault remains consider need for recalibration of sensor panel – contact falls educator or manufacturer if unsure

• The alarm will not sound when the bed or chair is **unoccupied**
  - is the switch on?
  - check that all connections are correctly assembled and not loose
  - check that volume knob is not turned down to low
  - check battery connections, check to see if low battery light is flashing

If all options have been checked – contact falls educator or manufacturer

**Altering the sensitivity of the monitor**

The SensorCare system is calibrated to a standardised level and should not normally require re-calibration between patients.
In certain circumstances however, such as when a patient is very light, adjustment may be necessary

On the top of the control unit are two recessed brass screws
 - the top screw adjusts the bed monitor panel
 - the lower screw the chair monitor panel

• **Adjusting the unit for a more sensitive response**
  - turn the recessed screw **clockwise** one-half revolution. Test the monitor, if additional sensitivity is required repeat the process

• **Adjusting the unit for a less sensitive response** (that is, if the patient activates the alarm simply by moving their position in the bed or chair)
  - turn the recessed screw **anti-clockwise** one-half revolution. Test the monitor, if additional sensitivity is required repeat the process
Guidelines use of bed & chair alarm systems

5. References
Heart of England – Falls Prevention Policy

SensorCare - www.sensorcare.co.uk

Essex Rivers Healthcare NHS Trust – Staff Guidance for use of SensorCare Monitor Systems