Showcase Hospitals Local Technology Review Report number 7

Kairos Audit Manager

Lewisham Healthcare NHS Trust

The Healthcare Associated Infections (HCAI) Technology Innovation Programme

The basic ways of preventing and reducing healthcare associated infections (HCAIs) are largely unchanged. The principal strategies for combating HCAIs are those associated with hand hygiene/aseptic techniques, prudent antibiotic prescribing and good clinical practice. However, new technologies and equipment can support these strategies by helping get things done differently, more swiftly or more reliably.

The Department of Health is funding the HCAI Technology Innovation Programme[1]. The Programme aims to

- Speed up the development and adoption of technologies to further help combat HCAIs
- Identify which new technologies provide the best value and will have the most impact

The Showcase Hospitals Programme

As part of the HCAI Technology Innovation Programme, Showcase Hospitals are undertaking local technology reviews of infection related products or technologies in which they have a specific interest. These are service evaluations, as defined by the National Patient Safety Agency's National Research Ethics Service, and do not therefore require Research Ethics Committee review.[2] This service evaluation was undertaken by Lewisham Healthcare NHS Trust.

[1] For further information on the Programme see http://www.hcai.dh.gov.uk

[2] See leaflet on defining research at http://www.nres.npsa.nhs.uk/news-and-publications/publications/general-publications/#leaflets

Acknowledgements

We would like to acknowledge the support of Lewisham Healthcare NHS Trust's Department of Infection Prevention and Control in the compilation of this report.

Showcase Hospitals Local Technology Review report number 7
Kairos Audit Manager

Contents

Executive summary

As part of the Department of Health's Healthcare Associated Infections (HCAI) Technology Innovation Programme, Showcase Hospitals have undertaken local technology reviews of infection related products or technologies in which they have a specific interest. This is with the objective to help Directors of Infection Prevention and Control and other stakeholders to decide whether they should consider any of these products or technologies as part of their Trust's strategy to reduce healthcare associated infections.

A study conducted by the National Audit Office found that many Trusts did not feel they had sufficient IT or clerical resources to support their system of surveillance.

Lewisham Healthcare NHS Trust decided to review Kairos Audit Manager (KAM), which is an electronic data capture and reporting solution (EDCRS) that may provide a viable solution to surveillance and data handling for IPC departments.

The evaluation involved compliance audit of the *Green is Clean* sticker, which indicates the cleanliness of stored medical equipment.

A 450 bedded acute district general hospital conducted seven weekly-randomised audits of inpatients' clinical areas using a modified Infection Control Nurses Association's (ICNA's) *Management of patient equipment (general)* audit.

During the two-week baseline periods, audits were carried out using the established methods (auditing, transcription and reporting); then audits were conducted over five weeks using KAM

At the conclusion of the evaluation, each IP&C nurse, matron and ward/ deputy manager was given self-administered questionnaires to determine attitudes and views. Eighty Four per cent of respondents preferred electronic reporting. One hundred per cent of the respondents agreed/strongly agreed that KAM saved time. Eighty four per cent of stakeholders found weekly feedback helpful and 71% believed that KAM assisted in the identification of risk.

As surveillance of wards increased compliance also increased and auditing time decreased.

Keywords: audit, time management and infection control

Introduction

This report sets out the findings from an evaluation in Lewisham Healthcare NHS Trust, one of ten Showcase Hospitals, of the in-use and economic features and adoption characteristics of Kairos Audit Manager (KAM).

The objective of this document is to help Directors of Infection Prevention and Control (IPC) and stakeholders to decide whether they should consider KAM as part of their Trust's strategy to reduce HCAIs.

The Problem

Dissemination of Infection Control Audits to Stakeholders

Winning Ways. Working together to reduce Healthcare Associated Infection in England[1] highlighted that in order to bring about improvement in IPC practices it is important that measures known to be effective in reducing the risk of infection are rigorously and consistently applied.

Infection, Prevention & Control (IPC) audit tools provide Trusts with a standardised method of monitoring both clinical practice and environment. The Infection Control Nurses Association (ICNA) emphasised the use of audit tools to measure the implementation of policies and procedures relating to IPC. [2]

Bryce et al concluded that infection control standardised audits provide an opportunity to benchmark existing practices, implement change, and assess identified remedy measures. They reviewed IPC team audits over 13 years and demonstrated that they provided opportunities to identify gaps in knowledge and non-compliance with IPC policies and procedures. The results of the audits led to 257 recommendations, of which 95% resulted in changes in policies and procedures. [3]

Feeding back audit results to stakeholders, wards and departments:

- provides information for staff and external stakeholders
- enables staff to systematically identify where improvement is needed
- helps identify training opportunities
- minimises infection
- enhances the quality of patient care and outcomes

IPC audits can be used to provide procurement departments with a measurable standard to determine the cost effectiveness of IP&C commissioning and procurement. The National Audit Office study [4] identified many Trusts use paper auditing tools for data collection.

> "*Infection control teams felt they had effective systems of surveillance for providing warning for infection outbreaks and providing wards with comparative data. However, many trust did not feel they had sufficient IT or clerical resources to support their system of surveillance*"

Data must be transcribed, input into databases and fed back using written reports; data analysis and risk assessments are performed manually. Manual methods are time consuming and can lead to transcription errors. Manual methods may cause a delay in disseminating:

- risks
- actions
- outcomes

Electronic data capture and reporting solutions (EDCRS) may provide a viable solution to data handling for IPC departments. EDCRS may assist in monitoring IPC audit data and the effectiveness of the organisation to identify and rectify non-compliances. EDCRS reduce duplication in terms of data capture reporting and save time.

The Product

Kairos Audit Manager

Kairos Audit Manager (KAM) is a custom-built software-auditing package, which uses EDCRS. At present, KAM uses ICNA standards auditing templates. Due to its web-based audit manager functionality, KAM can be used as an integrated or stand-alone solution.

Rackspace, a US based hosting company, hosts KAM, which Kairos states offers world-class standards in terms of guarantees, scalability and security.

KAM is placed on handheld SoMo 650 RX (Appendix I) computers in which data can be stored. Captured data is transmitted by Wi-Fi, GPRS or USB. Data is transmitted by direct exchange to meet the security needs of Trust's IT security protocols.

Audit Manager features:

- standard (ICNA) or bespoke auditing templates
- data protection
- rapid access to relevant standards and policies for each audit point
- easily editable audit reports
- web-based report generation, viewing and storage
- automatic email reporting to key stakeholders
- a platform for sharing data between locations
- remote real-time analysis of data
- no requirement of specialist software – uses standard web browsers e.g.IE Explorer or Mozilla Firefox for editing and viewing of reports
- reduced overall auditing process time (auditing, writing reports, and result distribution)
- RAG identification for risk and non-compliance
- a method to synchronise data to computers via USB
- Intel processor operating at 624MHz
- Bluetooth version 2 + EDR class 2 for maximum of 3rd party peripherals
- reinforced Compact Flash and SDIO slots

The knowledge base

What was known before this evaluation

Infection control auditing tools provide a standardised method for examining staff practice and monitoring the care environment. Feedback of auditing results assists with the identification of where improvement is required to reduce risk and improve the quality of patient care.

Millward et al reviewed the infection control audit tools used over 440 wards and determined whether objective auditing tools were effective at monitoring practices. They assessed the impact of training, and identified quality issues and measurement. [5]

A study by Anchalia & D'Ambruoso demonstrated the 88% reduction of SSI in a surgical unit after implementing a modified CDC guideline for the prevention of SSI audit. Consequently the audit tool was implemented throughout the surgical department leading to a 67% reduction of SSIs.[6]

Fowler et al highlighted the effectiveness of using departmental policy audit and feedback programmes to disseminate the rate of broad-spectrum antibiotic usage by prescribers. This led to a reduction in the rate of *Clostridium difficile*. [7]

Assanasen et al illustrated that with ward managers' support, providing visual audit reports to key stakeholders e.g. nurses and physician led to increased compliance with hand washing, elevation of head of bed and the reduction in femoral catheter insertions.[8]

The evaluation

The evaluation involved compliance audit of the *Green is Clean* sticker (Appendix II) which indicates the cleanliness of medical equipment.

A 450 bedded acute district general hospital conducted seven weekly-randomised audits of inpatients' clinical areas using a modified ICNA's *Management of patient equipment (general)* audit (Appendix III & IV).

During the two-week baseline periods, audits were carried out using the established methods (auditing, transcription and reporting); then audits were conducted over 5 weeks using KAM (electronic data capture and reporting solution).

KAM is able to supply an array of reports to meet departmental requirements. These are the reports used during this evaluation:

- Feedback Report (Appendix V)
    - Type of Audit
    - Date
    - Auditor

- Site
- Compliance Score
- Non-Compliance Score
- Non-Compliance resolution date

- Analysis of Audit Score – Division (Appendix VI)
  - Overall Compliance Score – RAG (red, amber & green)
  - Audit Date Range
  - Ward/Units
  - Auditors
  - Number of ward/units compliant within division

- Analysis of Audits – Trustwide (Appendix VII)
  - Overall Compliance Score – RAG (red, amber & green)
  - Audit Date Range
  - Ward/Units
  - Auditors
  - Number of ward/units compliant with the particular Trust's policy

- Top Items Trustwide (Appendix VIII)
  - Non-Compliance

- Annual Overview (Appendix IX)
  - Trust wide view
  - Ward/units
  - RAG and Compliance level achieved
  - Non-compliance

- Management of Patient Equipment Audit Results (figure 9)
  - IP&C Consultant Nurse
  - Graph demonstrating overall performance and drivers

The following graph shows the recipients of these reports.

Reports	Deputy/Ward Manager	Matron	Infection Prevention Consultant Nurse
Feedback Reports	x	x	
Analysis of Audit Score report -Division		x	x
Analysis of Audit - All		x	x
Top Items Report			x
Annual Overall Report *	x	x	x

**7 week data; Appendix IV-VIII*

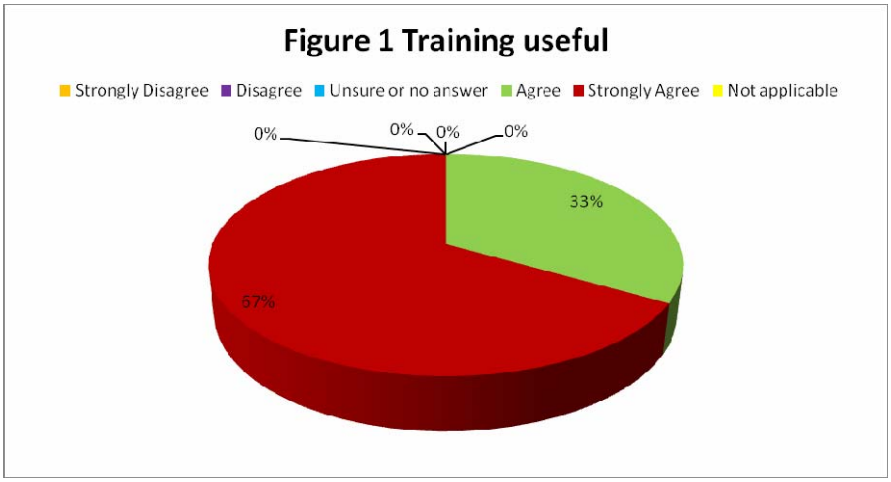
At the conclusion of the evaluation, each IP&C nurse, matron and ward manager was given self-administered questionnaires to determine attitudes and views on:

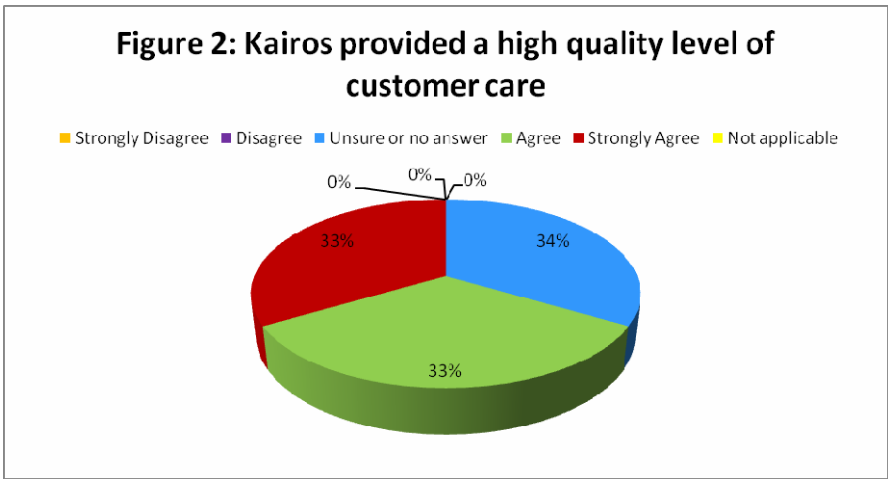
- the usefulness and appropriateness
- the scope of device and software
- the usability of data outputs e.g. trends and data analysis reporting
- risks Identification
- time efficiencies achievability

IP&C weekly performance times were determined by calculating the mean of each weekly auditing event.

Training

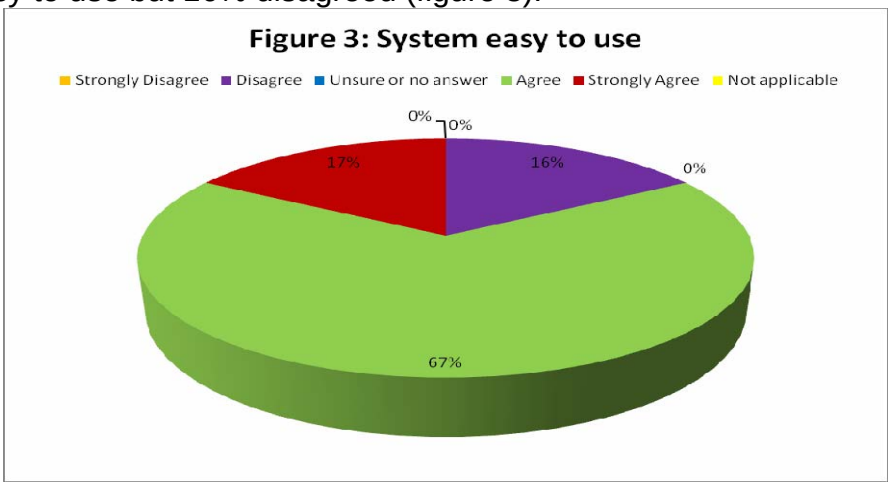
Eighty five per cent of IP&C nurses received training for the electronic KAM. One hundred per cent of IPC staff who completed a questionnaire agreed or strongly agreed that training was useful. Sixty six per cent of the IPC staff agreed or strongly agreed that KAM provided a high level of customer service (figures 1 and 2).

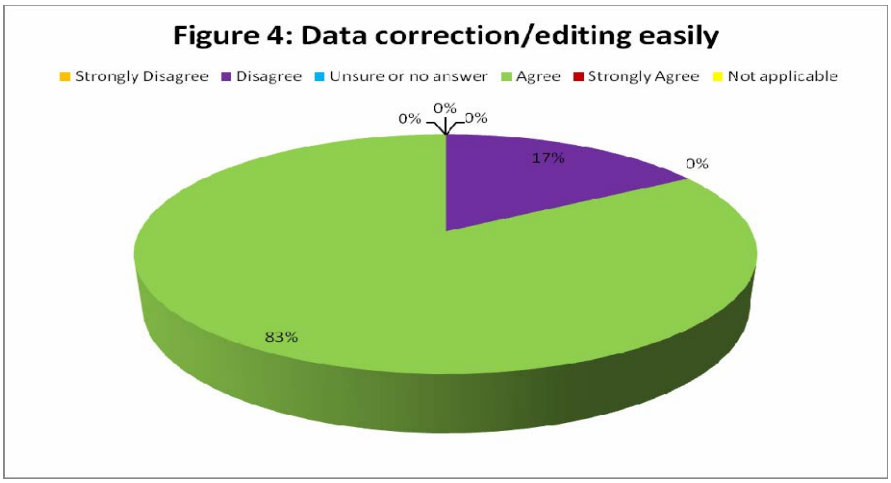




Results for Infection Prevention and Control Team

Eight four per cent of the IP&C nurses agreed or strongly agreed that KAM was easy to use but 16% disagreed (figure 3).





Eight three per cent of the IP&C nurses strongly agreed the entered data could be easily edited (figure 4). One hundred per cent agreed or strongly agreed that data could be easily uploaded to the online database.

When asked whether all IP&C audits could be undertaken by KAM, 66% agreed or strongly agreed and 17% were unsure.

One hundred per cent agreed or strongly agreed that the KAM solution saved time.

How acceptable was the product to staff?

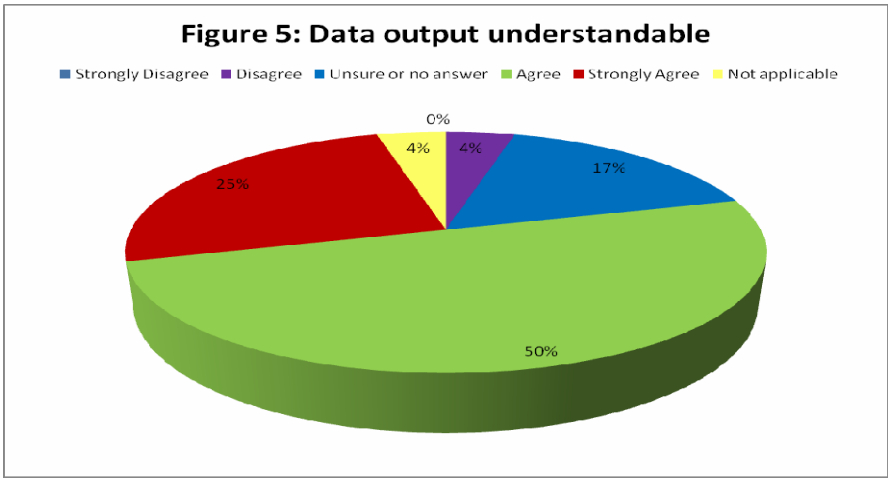
Key stakeholders for the KAM evaluation were matrons, ward/deputy managers, and the IP&C Team.

Key stakeholders completed self-administered questionnaires concerning the audit feedback components, of which 29% were matrons, 42% ward /deputy

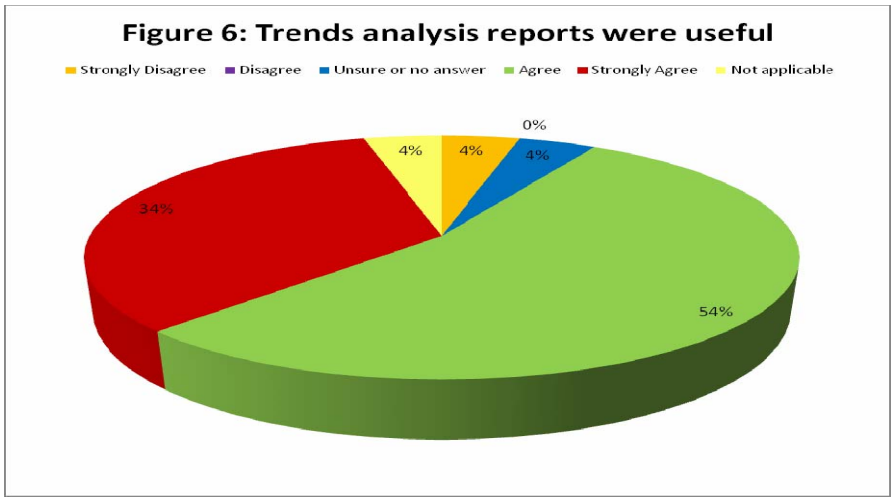
Managers, and 25% IP&C auditors (4% of respondents did not indicate their roles).

When asked about the reporting components of KAM, 84% agreed or strongly agreed that receiving weekly emails of the audit findings was useful, whereas 8% strongly disagreed (4% unsure).

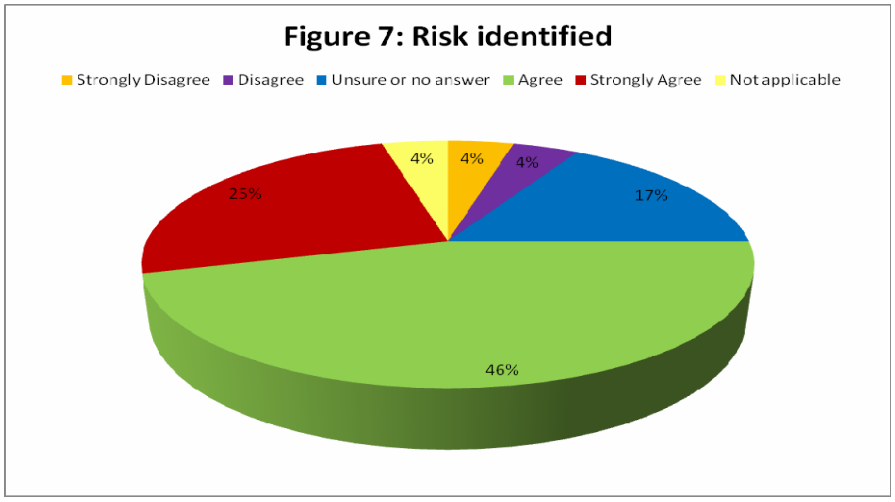
Comparing paper with electronic reporting, 84% of respondents preferred electronic reporting; however, 12% preferred paper reporting. Seventy four per cent of those who responded believed KAM reporting required less storage space whereas 13% were unsure about KAM reducing paper storage and 9% strongly disagreed that there was an improvement compared with paper reporting.



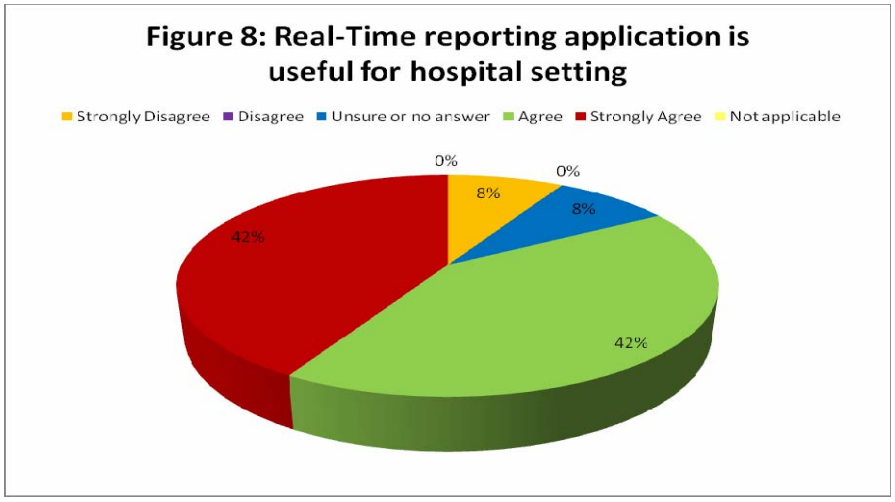
Seventy-five per cent found the data output understandable and 21% disagreed or strongly disagreed (figure 5). Eighty eith per cent of those who responded found the trend analysis report useful (figure 6).



When respondents were asked whether they were able to use audit reports to identify potential risks to patients, 71% were able to do so, 4% disagreed and the remaining were unsure or not applicable (figure 7).

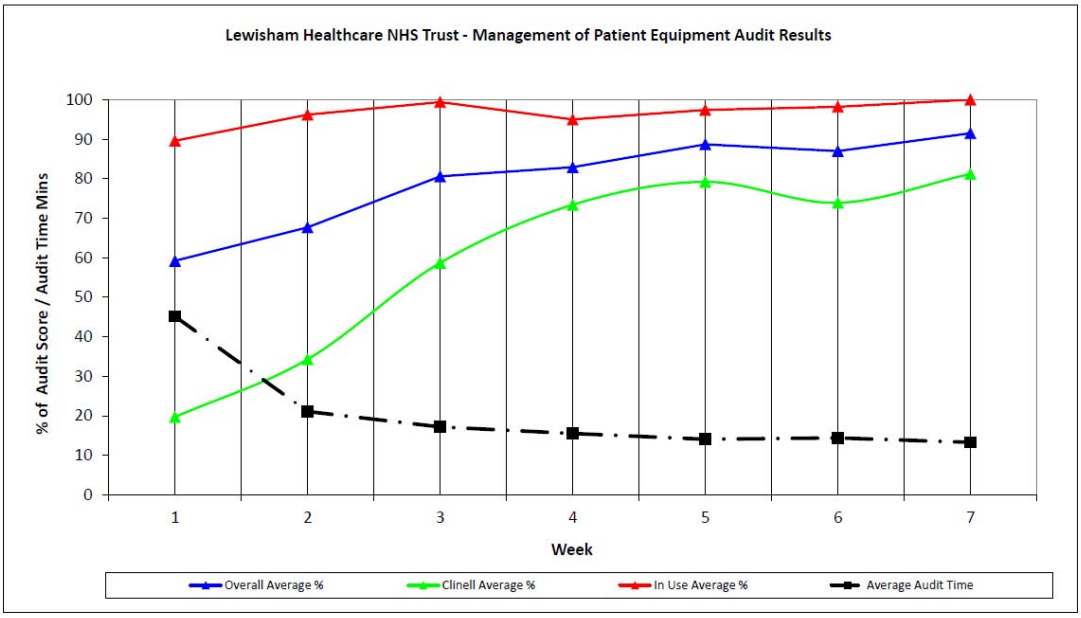


Eighty four per cent found the real-time reporting application useful for the hospital setting; with 8% disagreeing on this and 8% unsure (figure 8).



The performance chart (figure 8) shows that, as surveillance of wards increased, compliance also increased. This in turn meant that auditing time decreased.

Figure 9: Lewisham Healthcare NHS Trust- Management of Patient Equipment Audit Results.



Advice and tools for trusts considering introducing Kairos Audit Manager

Important points to consider

Modifications

For this evaluation, the Trust modified one ICNA audit template to meet the established protocol and standards. The modification took approximately two hours for one template. KAM offers an array of pre-programmed audits e.g. NPSA, ICNA. Before implementing KAM, Trusts will have to consider the lead-time required:

- to review existing audit protocols
- to modify KAM audit (if necessary)
- to incorporate and configure standards and regulations into the solution

The challenge may be met by assigning a Super-User to work with KAM developers.

Training

Various methods of training would be required to ensure that staff members are confident and efficient in understanding and using KAM's reporting elements.

Kairos has developed a training manual for the IP&C Team and Trainer (Super-User). Karios offers IT support to liaise with IT teams to configure the SoMo 650 RX computer to local protocols. KAM training is group based with hands-on practical applications to assist the learner. Total training time for the solution is four hours (2x2 hours sessions). However, execution time is

dependent on the level of computer experience and information uptake by the Learner.

Impromptu rather than scheduled training sessions may prove beneficial and meet the training needs for the individual receiving auditing reports e.g. matron, ward manager.

User training for report generation takes approximately two hours. This feature allows the user to incorporate the best reporting elements to represent global or departmental data.

Access

Wi-Fi access was limited in the Trust, resulting in:

- suboptimal data upload
- delay in data transmission to stakeholders

As a result of the Trust's IT security protocols, KAM upload function could only be used on computer terminals in the IPC department.

Limitations of this Evaluation

The KAM evaluation was conducted over a five-week period. This evaluation did not use the full capacity of the KAM solution:

- Multi-departmental - NPSA's 49 Steps
    - Domestic
    - Cleaning
- Patient Feedback - Dr. Foster-like capabilities

Costs and benefits

The IP&C department conducted the evaluation to monitor compliance with labeling clean patient equipment, with the *Green is Clean* sticker. If this department implemented the KAM solution, the costing would have followed the example below.

EXAMPLE : ACUTE DISTRICT GENERAL DEPARTMENT OF INFECTION CONTROL (Based on Six Users)				
		Year 1	Year 2	Year 3
System Licence		£10,000.00	£10,000.00	£10,000.00
System Set-up		£1,000.00	£0.00	£0.00
Consultancy & Project Management		£750.00	£0.00	£0.00
PDA User Training		£750.00	£0.00	£0.00
Reporter User Training		£750.00	£0.00	£0.00
IPS/Qit Audit Templates		£0.00	£0.00	£0.00
Support and Maintenance		£900.00	£900.00	£900.00
PDA Purchase		£650.00	£0.00	£0.00
	Total	£14,800.00	£10,900.00	£10,900.00
			3yr sprend	£36,600.00

	Analysis of Cost	
System License	Annual Fee	up to 100 Users
System Set Up	Initial Only	User set-up/multi0-level hierarchy
Consultancy & Project Management	Initial Only	Optional service after YR1
PDA User Training	Initial Only	Can train Super user to off-additional cost
Reporter User Training	Initial Only	Can train Super user to off-additional cost
IPS/Qit Audit Templates	Free of cost	Bespoke audit negoiable
Support and Maintenance	Annual Fee	Based on the number PDA User*
PDA Purchase	Initial Only	

KAM can assist Trusts with meeting and demonstrating compliance with the Health and Social Care Act 2008 as well as demonstrating:

- High Impact Interventions
- Quality, Innovation, Prevention and Productivity (QIPP) Agenda

KAM saved time and reduced waste.

Appendix I: SoMo 650 RX Handheld Computer

socket mobile

SoMo® 650Rx Handheld Computer
with Antimicrobial Protection

Designed Specifically for Healthcare Applications

The SoMo 650Rx is a hospital-grade handheld computer made with antimicrobial materials that provide an extra layer of protection against the multiplication and spread of potentially harmful bacteria and microbes.

Portable Computing Product of the Year Award 2008

Featuring a durable, lightweight, ergonomic design and robust wireless network capability, the SoMo 650Rx brings reliable automated patient data management directly to the point of care, enabling clinicians to automate healthcare applications while also optimizing patient safety across different healthcare environments.

Powered by a high-speed CPU, the SoMo 650Rx provides extremely fast application response for demanding healthcare applications. It can also be optionally configured to read barcode and RFID data, making it a complete mobile computing, data capture and wireless networking solution. Its clear, bright display provides optimal viewing in a variety of lighting conditions, while its Li-ion extended battery enables multiple-shift operation on a single charge.

BENEFITS

- Capture patient vitals, view lab reports and write up reports at the point of care
- Identify high-risk patients who need the most care, more quickly
- Reduce costly paper-based errors that can result in liability
- Spend more time with patients and more time providing high-quality patient care

KEY FEATURES

- Windows Mobile® 6 operating system
- Durable, lightweight, ergonomic handheld design
- Fast roaming Wi-Fi® 802.11b/g switches seamlessly between access points
- *Bluetooth*® 2.0 + EDR Class 2 wireless connectivity
- Optionally configurable to read barcode, RFID, magnetic stripe or smart card data
- Deployment ready system, designed to run out of the box

socket Business Mobility Now!™

APPLICATIONS

- Patient tracking
- Viewing lab reports
- Bedside POC (Point of Care)
- Pharma tracking
- Biological product tracking

ADDITIONAL FEATURES

- Cisco CCX 4.0 certified for compatibility with Cisco WLAN infrastructure and support for advanced data security and performance*
- Extended battery provides long run times for rigorous clinical applications
- Large standard memory configuration with 128 MB SDRAM, 1 GB or 256 MB NAND FLASH to support robust applications
- Reinforced CompactFlash and SDIO slots for long product life and protection of peripheral devices
- Hard capped buttons for ease of use and long life
- Side mounted software programmable action buttons for better user control
- Control hold switch to prevent accidental button input with configuration software
- Recessed power switch to extend battery life and prevent accidental power-on/off
- Complete line of accessories to fit many application requirements
- SoMo File Store provides non-volatile storage for device ROM image and applications/ configurations that survives a hard reset

**Requires Socket Enhanced Wi-Fi® Companion™ software, optional to install.*

SoMo 650Rx Handheld Computer

with Antimicrobial Protection

"The SoMo 650 provides the features and the flexibility that is needed in healthcare and does it in a package that can be supported at an enterprise level."

— Jim Kohler
Associate Director,
Point of Care Solutions
Hospira

Watch a video of Socket Medical Mobility Products:

http://www.youtube.com/watch?v=x04Dqg0tjc8

Long Available Life

For healthcare organizations, short product availability and lifespan can be key challenges to implementations. The SoMo 650Rx has a product life far longer than typical consumer PDAs, giving organizations ample time to qualify, deploy, and get a return on investment. Also, when users are ready to upgrade, Socket provides realistic thoughtful migration options to assure a smooth transition.

Flexibility over Time

The SoMo 650Rx is easy to customize with a wide range of barcode, RFID, magnetic stripe, and smart card readers, as well as communications peripherals for Ethernet, modem or WWAN broadband connections. Software drivers and utilities are pre-loaded on the SoMo 650Rx, so you can deploy out of the box with your favorite Socket peripheral. The device's rich *Bluetooth* implementation enables you to connect to Socket hand-held and hands-free barcode scanning solutions along with printers, medical devices or other readily available 3rd party *Bluetooth* peripherals.

Best-in-Class Wireless

The SoMo 650Rx incorporates best-in-class *Bluetooth* and Wi-Fi technology, with one of the most complete libraries of *Bluetooth* profiles in the market, ensuring compatibility with the broadest range of 3rd party *Bluetooth* based peripherals, as well as the latest 802.11b/g Wi-Fi technology to provide robust coverage, fast roaming, and superior network security. With Socket Enhanced Wi-Fi Companion software (optional to install), the device is also Cisco CCX 4.0 certified for use with Cisco WLAN infrastructure. The SoMo 650Rx Back Pack (sold separately) enables you to add a Novatel Wireless ExpressCard modem card for wireless broadband.

SocketCare™ Extended Warranty (Sold separately, SKU# HC003P-843)
Experience maximum performance while lowering Total Cost of Ownership (TCO) with SocketCare, which features high quality support from Socket specialists, accelerated repair and replacement, and fast and reliable product service at competitive costs. For more information, visit: www.socketmobile.com/support/socketcare/

Product	Package Contents
SoMo 650Rx-E	- SoMo 650Rx - Wall Charger - USB Sync /Charging Cable - Extended Battery - Full Size Stylus - Quick Start Guide - Getting Started CD with Software and User's Guide
SoMo 650Rx-M	Same as above plus: - Desktop Docking Cradle - Carrying Case - 2.5 to 3.5 mm Headset Adapter - Audio Headset with Microphone

Languages Available
- Worldwide English - Chinese - Dutch - Finnish - French - German - Italian - Japanese - Norwegian - Portuguese (Brazilian) - Portuguese (Iberian) - Spanish - Swedish

socket

Sales Offices
Corporate Headquarters:
39700 Eureka Drive
Newark, CA 94560 USA
Web: socketmobile.com
Phone: +1-510-933-3000
US & Canada Toll Free: 800-552-3300
Fax: +1-510-933-3030
Online: socketmobile.com/contact

Business Mobility Now!™

SoMo 650 Specifications

socket. mobile

SoMo® 650Rx Handheld Computer

With Antimicrobial Protection

Specification Sheet

PHYSICAL

Dimensions	5.00 x 2.94 x 0.98 inches (127 x 74.60 x 25 mm)	
Total Mass	7.20 oz (204 g) with extended battery and stylus	
Antimicrobial Rating (JIS Z2801:2000 Test)	2.49 on Methicillin-resistant Staphylococcus aureus (MRSA) 6.07 when cleaned with Sani-Cloth® Plus disposable cloth wipes	
Antimicrobial Additive	Ishizuka Glass, Ionpur IPL EPA# 73148-3, FDA# FCN000432, EFSA registered in EU	
Display	65K colors TFT LCD, 3.5" 16 bit per pixel, 240 (w) x 320 (l) resolution	
Touch Panel	Glass analog resistive touch	
Backlight	White LED backlight	
Extended Battery	3.7V 2600 mAh Lithium Ion rechargable	
Backup Battery	Super Capacitor to support Realtime Clock	
Expansion Slots	CompactFlash and SDIO Slots: Reinforced to prevent damage from drop events	
LED Indicators	Red/Green LED for alarm, battery charging	Blue/Green LED for *Bluetooth* and Wireless LAN
Buttons	4 front panel programmable soft buttons 2 side programmable action buttons Control hold switch	5 navigation buttons Device reset button Power on/off button
Input Devices	Stylus (Note: touch sensitive display for stylus or fingertip)	
Connectors	Barrel connector power jack USB 1.1 host & USB 2.0 Client	26 pin docking connector for ActiveSync 2.5mm headset jack with support for voice & stereo music
Audio	Built-in Microphone and Speaker, voice recording capability with Notes application	

PRE-LOADED SOFTWARE

Microsoft Software	Office Mobile: Word Mobile, Excel Mobile, PowerPoint Mobile, OneNote Mobile Web/Communications: Office Outlook Mobile, Internet Explorer, MSN Messenger Client Synchronization/Remote Access: ActiveSync Client, Remote Desktop Mobile Media: Windows Media Player Mobile Other: Programmable Home Screen, .NET Compact Framework v2.0, Calculator, Tasks, Notes
Socket Software*	Data Capture: SocketScan™ for Socket barcode / RFID / magnetic stripe readers and UIC683 smart card reader Wireless Broadband: SoMo 650 Back Pack Utilities WLAN / *Bluetooth*: Connect!Agent™, Enhanced Wi-Fi® Companion™ Power Management: Power Plus Battery Friendly® Utility, Hold Switch Utility, CPU Performance Utility Cabled Communications: Modem Utilities, Ethernet Utilities
SocketSerial Software	Serial I/O Card drivers, USB-to-Serial Adapter drivers, USB Ethernet Gigabit Adapter drivers
Sprite Mobile Software	Sprite Backup (trial version)

PERFORMANCE

Processor	Intel PXA270 @ 624 MHz
Operating System	Windows Mobile® 6 Classic
Languages Available	Worldwide English, Chinese, Finnish, French, German, Italian, Japanese, Norwegian, Portuguese (Brazilian), Portuguese (Iberian), Spanish, Swedish (Languages available via ROM upgrade, free to registered users)
Memory	128 MB SDRAM, 1 GB or 256 MB NAND FLASH
SoMo File Store	Non-volatile memory for device applications/configurations can survive hard reset of device Features Auto-Run support, ideal for provisioning deployments

*Wi-Fi Companion is pre-installed. Enhanced Wi-Fi Companion is pre-loaded but optional to install.

ENVIRONMENT

Operating Temperature	0° to 50° C (32° to 120° F)
Storage Temperature	-25° to 75° C (-13° to 167° F)
Humidity	95% non-condensing
Drop Specification	Multiple 1 m (3.3 ft) drops to concrete covered with vinyl (1.3 m (4.3 ft) with optional DuraCase)
ESD Specification	+/- 8kV air discharge, +/- 8kV direct discharge

WIRELESS

Wireless Local Area Network	IEEE® 802.11 b/g Data Rate: 1/2/5.5/6/9/11/12/18/24/36/48/54 Mbps Frequency Range: Country dependent (chan 1- 14); 2.412 to 2.484 GHz Output Power: 14.5 dBm (OFDM); 16 dBm (CCK) Antenna: Internal
Bluetooth	v2.0 + EDR Class 2 Supported Profiles: - GAP: Generic Access Profile - SDP: Service Discovery Profile - A2DP - Advanced Audio Profile - AVCTP - Audio/Video Control Transport Protocol - AVRCP - Audio/Video Remote Control Profile - GAVDP - Generic Audio/Video Distribution Profile - DUN - Dial-up Networking Profile - AVDTP - Audio/Video Distribution Transport Protocol - HSP: Headset Profile - HID - Human Interface Device (Host role) - OPP - Object Push Profile (Client and Server) - SPP - Serial Port Profile

LEGAL

Warranty	Handheld Computer: One year standard warranty Accessories (battery, cable, etc.): 90 day warranty SocketCare enhanced service program available separately
Certification/ Compliance	FCC: Part 15, Class B Industry Canada RoHS and WEEE compliant EMI / RFI *Bluetooth* Certification (BQB test) Microsoft Windows Mobile 5.0/6.1 Logo Test Certification EU/International: EN301 489-1, -17 EN61000-4-2: 1995, ESD ± 8kV air/±4kV contact TELEC EN61000-4-3: 1997, radiated Immunity 3V/m EN61000-4-4: 1995, EFT ± 0.55kV EN61000-4-5: 1995, Surge ± 0.5kV EN61000-4-6: 1 CE: EN Electrical Safety EN60950, UL, CSA Wi-Fi Alliance Certification USB IF Test Cisco CCX 4.0 (requires Enhanced Wi-Fi Companion)

OPTIONAL ACCESSORIES

Data Capture	Barcode / RFID / magnetic stripe / smart card readers (SD / CF card or *Bluetooth* wireless)
Wireless Broadband	SoMo 650Rx Back Pack wireless broadband ExpressCard adapter (Novatel Wireless modem not included)
Charging / Synchronization	Batteries: EMobile Power Pack portable battery pack Cradles: Cradle kit, Multi-bay charger (charges 4 devices and 4 batteries) Cables: Car charger, Master USB with DC jack, USB sync cable, USB Y cable
Protection	DuraCase protective case, Screen protector kit, FlexGuard silicone cover, Belt carrying case
Input	Tethered stylus, Medical-grade and silicone keyboards
For a full list of Socket peripherals and accessories, visit: http://ww1.socketmobile.com/products/handheld-computers/accessories-hc.aspx To learn about accessories from STAR partners, visit: http://ww1.socketmobile.com/products/star.aspx	

Product	Package Contents
SoMo 650Rx-E	- SoMo 650Rx - USB Sync/Power Cable - Wall Charger: AC/DC adapter, Input 100~240 V AC - Extended Battery - Full Size Stylus - Quick Start Guide - Getting Started CD with Software and User's Guide
SoMo 650Rx-M	Same as above plus: - Desktop Docking Cradle: Simultaneous charge for docked unit and spare battery, includes USB 1.1 Host and USB 2.0 Client ports, powered from wall charger or USB synch/power cable - Carrying Case - 2.5 to 3.5 mm audio headset adapter - Audio headset with microphone

socket

Sales Offices
Corporate Headquarters:
39700 Eureka Drive
Newark, CA 94560 USA

Web: socketmobile.com

Phone: +1-510-933-3000

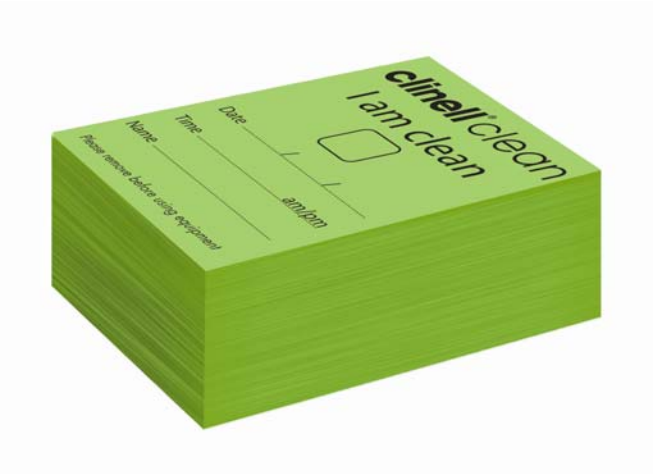
USA & Canada Toll Free: 800-552-3300

Fax: +1-510-933-3030

Online: socketmobile.com/contact

Business Mobility Now!™

Appendix II: Green Clinell Sticker



Appendix III: Original ICNA Auditing Tool

This tool was modified to meet the needs of the IP&C department (for complete list visit http://www.ips.uk.net/icna/Admin/uploads/audit_tools_acute.pdf)

4.0 Audit tools 4.7 Management of patient equipment (general) 1 of 4

INFECTION CONTROL AUDIT TOOLS

Management of patient equipment (general)

Standard: There is a system in place that ensures as far as reasonably practicable that all reusable equipment is properly decontaminated prior to use and that the risks associated with decontamination facilities and processes are adequately managed
All decontamination must be undertaken in accordance with local policy and manufacturers' instructions

Date ..... **Ward**..... **Auditor**.....

	Knowledge of decontamination	Yes	No	N/A	Comments
1	A written comprehensive decontamination policy, approved by the ICT/ICC is available to all staff				
2	Staff are aware of the need to contact infection control for advice when purchasing new equipment				
3	Manufacturers' instructions are available for the decontamination of newly purchased equipment				
4	Staff can state the procedure for decontamination of commonly used patient care equipment e.g. commodes, mattresses, IV stands				
5	Staff can describe the symbol used to indicate single use items				
6	Staff are aware of the need for decontamination and a certificate before equipment is maintained/serviced/ repaired whether within the area or transferred from the area				
7	Local decontamination of reusable surgical instruments is not undertaken in clinical areas. (Check if bench top autoclaves are used. If they are in use refer to the NHS Estates Decontamination Audit Tools.)				
8	Used instruments are safely stored in an appropriate container prior to collection for decontamination in CSSD				
9	The responsibility for the cleaning of dedicated patient equipment is clearly defined, e.g., bed frames, IV stands, commodes				

4.0 Audit tools 4.7 Management of patient equipment (general) 2 of 4

	The following general equipment is visibly clean, check:	Yes	No	N/A	Comments
10a	IV stands				
10b	IV pumps/syringe drivers				
10c	Cardiac monitors				
10d	Near patient testing equipment e.g. blood gas machines				
10e	Dressing trolleys				
10f	Blood pressure cuffs				
10g	Pillows				
10h	Mattresses				
10i	Cot sides				
10j	Wheelchairs and cushions				
10k	Oxygen saturation probes				
11	Patient wash bowls are decontaminated appropriately between patients and are stored clean dry and inverted				
12	Standard mattress covers are in a good state of repair (Select a bed at random and undertake a mattress test[1])				
13	Pressure relieving mattresses covers are visibly clean (open mattress cover and observe for any staining with bodily fluids, perform mattress test [1])				
14	Pressure relieving mattresses with removable cells are decontaminated between patient uses according to manufacturers' instructions. Infection control must verify that external companies provide appropriate decontamination				
15	Disposable paper towel on couches/trolleys is changed between each patient use				
	Manual handling equipment is managed according to local policy and is visibly clean, check:				
16a	Hoists (check underside)				
16b	Pat slides				
16c	Easy slides				
16d	Hoist slings				
16e	Stand aids				
16f	Handling belts				

Appendix IV: Infection Control Audit Tools Using KAM

Management of patient equipment (general)

Standard: There is a solution in place that ensures, as far as reasonably practicable, that all reusable equipment is properly decontaminated prior to use and that the risks associated with decontamination facilities and processes are adequately managed.

All decontamination must be undertaken in accordance with local policy and manufacturers' instructions.

Audit Definition Report

(NEW)Managment of Patient Equipment V1.0

IV Stands

Are all IV Stands in USE Visibly Clean ? (If No Clarify your observation in the box below) — Yes, No or NA — Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Is Clinell Clean sticker completed and on the clean IV Stand(s) that are stored and NOT in use (If No Clarify your observation in the box below) — Yes, No or NA — Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

IV Stands In Use - Non Compliant

Clarify your observation of the IV Stands in USE — Freetext — Max:0

The issues with Non-Compliant IV Stand(s) In USE must be rectified: — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

IV Stands Not In Use - Non Compliant

Clarify your observation of the IV stands that are stored and NOT in use. — Freetext — Max:0

The Issues with Non-Compliant IV stands in storage and NOT in use must be rectified: — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

IV Pumps / Syr Drivers

Are all IV Pumps/Syringe Drivers in USE Visibly Clean ? (If No Clarify your observation in the box below) — Yes, No or NA — Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Is Clinell Clean sticker completed and on the clean IV Pumps/Syringe Drivers) that are stored and NOT in use (If No Clarify your observation in the box below) — Yes, No or NA — Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

IV Pumps / Syr Drivers In Use Non Compliant

Clarify your observation of the IV Pumps/Syringe Drivers in USE — Freetext — Max:0

The issues with Non-Compliant IV Pumps(s) / Syringe Drivers In USE must be rectified: — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours

4.	No	0	None	Within 24 Hours

IV Pumps / Syr Drivers - Not In Use Non Compliant

Clarify your observation of the IV Pumps/Syringe Drivers in storage and NOT in use. — Freetext — Max:0

The issues with Non-Compliant IV Pumps(s) / Syringe Drivers In storage and NOT in use must be rectified : — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

Cardiac Monitors

Are all Cardiac Monitors in USE Visibly Clean ? (If No Clarify your observation in the box below) — Yes, No or NA — Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Is Clinell Clean sticker completed and on the clean Cardiac Monitor(s) that are stored and NOT in use (If No Clarify your observation in the box below) — Yes, No or NA — Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Cardiac Monitors - In Use Non Compliant

Clarify your observation of the Cardiac Monitors in USE — Freetext — Max:0

The Issues with Non-Compliant Cardiac Monitors in USE must be rectified: — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

Cardiac Monitors - Not In Use Non Compliant

Clarify your observation of the Cardiac Monitors in storage and NOT in use — Freetext — Max:0

The Issues with Non-Compliant Cardiac Monitors in storage and NOT in use must be rectified: — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 24 Hours
4.	No	0	None	Within 24 Hours

Patient Testing Equipment

Is all Patient testing equipment e.g. blood gas, blood glucose machines in USE Visibly Clean ? (If No Clarify your observation in the box below) — Yes, No or NA — Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Is Clinell Clean sticker completed and on the clean Patient testing equipment that is stored and NOT in use e.g. blood gas, blood glucose machines (If No Clarify your observation in the box below) — Yes, No or NA — Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No

3.	No	0	None	NA

Patient Testing Equipment - In Use Non Compliant

Clarify your observation of the Patient Testing Equipment in USE — Freetext — Max:0

The Issues with Non-Compliant Patient Testing Equipment in USE must be rectified: — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

Patient Testing Equipment - Not In Use Non Compliant

Clarify your observation of the Patient Testing Equipment in storage and NOT in use — Freetext — Max:0

The Issues with Non-Compliant Patient Testing Equipment in storage and NOT in use must be rectified: — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

Dressing Trolleys

Are all Dressing Trolleys in USE Visibly Clean ? (If No Clarify your observation in the box below) — Yes, No or NA — Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Is Clinell Clean sticker completed and on the Dressings Trolley(s) that are stored and NOT in use (If No Clarify your observation in the box below) — Yes, No or NA — Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Dressing Trolleys - In Use Non Compliant

Clarify your observation of the Dressing Trolley(s) in USE — Freetext — Max:0

The Issues with Non-Compliant Dressing Trolley(s) in USE must be rectified: — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

Dressing Trolleys - Not In Use Non Compliant

Clarify your observation of the Dressing Trolley(s) in storage and NOT in use — Freetext — Max:0

The Issues with Non-Compliant Dressing Trolleys in storage and NOT in use must be rectified: — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

Blood Pressure Cuffs

Audit Definition Report

Are all Blood Pressure Cuffs in USE Visibly Clean ? (If No Clarify your observation in the box below) — Yes, No or NA — Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Is Clinell Clean sticker completed and on the Blood Pressure Cuff(s) that are stored and NOT in use (If No Clarify your observation in the box below) — Yes, No or NA — Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Blood Pressure Cuffs - In Use Non Compliant

Clarify your observation of the Blood Pressure Cuffs(s) in USE — Freetext — Max:0

The Issues with Non-Compliant Blood Pressure Cuff(s) in USE must be rectified: — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

Blood Pressure Cuffs - Not In Use Non Compliant

Clarify your observation of the Blood Pressure Cuffs that are stored and NOT in use. — Freetext — Max:0

The Issues with the Non-Compliant Blood Pressure Cuffs in storage and NOT in use must be rectified: — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

Oxy Sat Probes

Are all Oxygen Saturation probes in USE Visibly Clean ? (If No Clarify your observation in the box below) — Yes, No or NA — Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Is Clinell Clean sticker completed and on the Oxygen Saturation probe(s)that are stored and NOT in use (If No Clarify your observation in the box below) — Yes, No or NA — Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Oxy Sat Probes - In Use Non Compliant

Clarify your observation of the Oxy Sat Probe(s) in USE — Freetext — Max:0

The Issues with Non-Compliant Oxy Sat Probe(s) in USE must be rectified: — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

Oxy Sat Probes - Not In Use Non Compliant

Clarify your observation of the Oxy Sat Probe(s) that are stored and NOT in use. Freetext Max:0

The Issues with the Non-Compliant Oxy Sat Probe(s) in storage and NOT in use must be rectified: Dropdown Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

Hoists

Are all Hoists (Check underside) in USE Visibly Clean ? (If No Clarify your observation in the box below) Yes, No or NA Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Is Clinell Clean sticker completed and on the Hoist(s) that are stored and NOT in use (If No Clarify your observation in the box below) Yes, No or NA Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Hoists - In Use Non Compliant

Clarify your observation of the Hoist(s) in USE Freetext Max:0

The Issues with Non-Compliant Hoist(s) in USE must be rectified: Dropdown Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

Hoists - Not In Use Non Compliant

Clarify your observation of the Hoist(s) that are stored and NOT in use. Freetext Max:0

The Issues with the Non-Compliant Hoist(s) in storage and NOT in use must be rectified: Dropdown Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

Hoist Slings

Are all Hoist Slings in USE Visibly Clean ? (If No Clarify your observation in the box below) Yes, No or NA Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Is Clinell Clean sticker completed and on the Hoist Slings that are stored and NOT in use (If No Clarify your observation in the box below) Yes, No or NA Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Hoist Slings - In Use Non Compliant

Clarify your observation of the Hoist Sling(s) in USE — Freetext — Max:0

The Issues with Non-Compliant Hoist Sling(s) in USE must be rectified — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

Hoist Slings - Not In Use Non Compliant

Clarify your observation of the Hoist Sling(s) that are stored and NOT in use — Freetext — Max:0

The Issues with the Non-Compliant Hoist Sling(s) in storage and NOT in use must be rectified: — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

Commodes

Are all Commodes in USE Visibly Clean and ready for use (Check underside) ? (If No Clarify your observation in the box below) — Yes, No or NA — Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Is Clinell Clean sticker completed and on the Commode(s) that are stored and NOT in use (If No Clarify your observation in the box below) — Yes, No or NA — Max:1

	Ex.	Sc.	Compliancy	Answer
1.	No	1	Compliant	Yes
2.	No	0	Non Compliant	No
3.	No	0	None	NA

Commodes - In Use Non Compliant

Clarify your observation of the Commode(s) in USE — Freetext — Max:0

The Issues with Non-Compliant Commode(s) in USE must be rectified — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

Commodes - Not In Use Non Compliant

Clarify your observation of the Commode(s) that are stored and NOT in use — Freetext — Max:0

The Issues with the Non-Compliant Commode(s) in storage and NOT in use must be rectified: — Dropdown — Max:0

	Ex.	Sc.	Compliancy	Answer
1.	No	0	None	Immediately
2.	No	0	None	Within 1 Hour
3.	No	0	None	Within 12 Hours
4.	No	0	None	Within 24 Hours

Appendix V: Feedback Report

Created:16/03/2011 at 16:40
Created By:Hyacinth Russell
Enterprise:Kairos
Company:

Feedback Report

Audit: **(NEW)Managment of Patient Equipment V1.0**
Audit Date & Time: **16 March 2011 at 16:22:09**
Auditor: **Hyacinth Russell**
Site:
Address:
Score: **86.67%**
Rating: **Partial Compliant**

IV Stands (50.0%)

Are all IV Stands in USE Visibly Clean ? (If No Clarify your observation in the box below) (1 out of 1)
Yes

Is Clinell Clean sticker completed and on the clean IV Stand(s) that are stored and NOT in use (If No Clarify your observation in the box below) (0 out of 1)
No

IV Stands Not In Use - Non Compliant (0.0%)

Clarify your observation of the IV stands that are stored and NOT in use. (0 out of 0)
no green sticker

The Issues with Non-Compliant IV stands in storage and NOT in use must be rectified:
Within 24 Hours

IV Pumps / Syr Drivers (100.0%)

Are all IV Pumps/Syringe Drivers in USE Visibly Clean ? (If No Clarify your observation in the box below) (1 out of 1)
Yes

Is Clinell Clean sticker completed and on the clean IV Pumps/Syringe Drivers) that are stored and NOT in use (If No Clarify your observation in the box below)
NA

Cardiac Monitors

Are all Cardiac Monitors in USE Visibly Clean ? (If No Clarify your observation in the box below)
NA

Is Clinell Clean sticker completed and on the clean Cardiac Monitor(s) that are stored and NOT in use (If No Clarify your observation in the box below)
NA

Patient Testing Equipment (50.0%)

Is all Patient testing equipment e.g. blood gas, blood glucose machines in USE Visibly Clean ? (If No Clarify your observation in the box below) (1 out of 1)
Yes

Is Clinell Clean sticker completed and on the clean Patient testing equipment that is stored and NOT in use e.g. blood gas, blood glucose machines (If No Clarify your observation in the box below) (0 out of 1)
No

Patient Testing Equipment - Not In Use Non Compliant (0.0%)

Clarify your observation of the Patient Testing Equipment in storage and NOT in use (0 out of 0)
no green sticker on one of bm boxes

The Issues with Non-Compliant Patient Testing Equipment in storage and NOT in use must be rectified:
Within 24 Hours

Dressing Trolleys (100.0%)

Are all Dressing Trolleys in USE Visibly Clean ? (If No Clarify your observation in the box below) (1 out of 1)
Yes

Is Clinell Clean sticker completed and on the Dressings Trolley(s) that are stored and NOT in use (If No Clarify your observation in the box below) (1 out of 1)
Yes

Blood Pressure Cuffs (100.0%)

Are all Blood Pressure Cuffs in USE Visibly Clean ? (If No Clarify your observation in the box below) (1 out of 1)
Yes

Is Clinell Clean sticker completed and on the Blood Pressure Cuff(s) that are stored and NOT in use (If No Clarify your observation in the box below) (1 out of 1)
Yes

Oxy Sat Probes (100.0%)

Are all Oxygen Saturation probes in USE Visibly Clean ? (If No Clarify your observation in the box below) (1 out of 1)
Yes

Is Clinell Clean sticker completed and on the Oxygen Saturation probe(s)that are stored and NOT in use (If No Clarify your observation in the box below) (1 out of 1)
Yes

Hoists (100.0%)

Are all Hoists (Check underside) in USE Visibly Clean ? (If No Clarify your observation in the box below) (1 out of 1)
Yes

Is Clinell Clean sticker completed and on the Hoist(s) that are stored and NOT in use (If No Clarify your observation in the box below) (1 out of 1)
Yes

Hoist Slings

Are all Hoist Slings in USE Visibly Clean ? (If No Clarify your observation in the box below)
NA

Is Clinell Clean sticker completed and on the Hoist Slings that are stored and NOT in use (If No Clarify your observation in the box below)
NA

Commodes (100.0%)

Are all Commodes in USE Visibly Clean and ready for use (Check underside) ? (If No Clarify your observation in the box below) (1 out of 1)
Yes

Is Clinell Clean sticker completed and on the Commode(s) that are stored and NOT in use (If No Clarify your observation in the box below) (1 out of 1)
Yes

Sign Off:

Appendix VI: Analysis of Audit Score – Division

ANALYSIS OF AUDIT SCORES REPORT

Company: Acute General Hospital

Site: Division 2
Audit Definition: (NEW)Managment of Patient Equipment V1.0
Call Type: [All Call Types]
Audit Type: Audit

Date Range: 14/02/2011 to 18/02/2011
Field Team Manager: [All]
Lead Auditor: [All]
Auditor: [All]
Report Category: [No Report Category Selected]

Total No. Audits: 3 **Average Score:** 77.2 % **Ordered By:** Percentage as Descending

Date	Audit Name	Site No.	Site	Auditor	%	Rating
14/02/2011	(NEW)Managment of Patient Equipment V1.0	16	Ward 16	Bhairvi Sampat	87.5%	Partial Compliant
15/02/2011	(NEW)Managment of Patient Equipment V1.0	14	Ward 14	Bhairvi Sampat	75%	Partial Compliant
15/02/2011	(NEW)Managment of Patient Equipment V1.0	17	Ward 17	Bhairvi Sampat	69.2%	Partial Compliant

Rating Breakdown:

Management of patient equipment (general)

Partial Compliant	3

Appendix VII: Analysis of Audits – Trustwide

Period End Report

Audit Definition: (NEW)Managment of Patient Equipment
Section Definition: [All Section Definitions]
Report Category: Equipment NOT In use (Clinell) (ALL)
Business Unit: Acute General Hospital

Range 1: 14/02/2011 to 18/02/2011
Range 2: 21/02/2011 to 25/02/2011
Order: Title - Ascending

Format	Grp.	No.	Site	Pd.	%	RAG	Pd.	Re.%	RAG	Pd.	%	RAG	Pd.	Re.%	RAG
Division 1	Division 1	1	Ward 1		42.86	Non Comp					71.43	Partial Co			
Division 1	Division 1	10	Ward 10		37.5	Non Comp					25	Non Comp			
Division 1	Division 1	11	Ward 11		28.57	Non Comp					14.29	Non Comp			
Division 1	Division 1	12	Ward 12		71.43	Partial Co					100	Compliant			
Division 1	Division 1	2	Ward 2		85.71	Partial Co					100	Compliant			
Division 1	Division 1	20	Ward 20		16.67	Non Comp					66.67	Partial Co			
Division 1	Division 1	21	Ward 21		57.14	Partial Co					16.67	Non Comp			
Division 1	Division 1	3	Ward 3		42.86	Non Comp					28.57	Non Comp			
Division 1	Division 1	4	Ward 4		14.29	Non Comp					14.29	Non Comp			
Division 1	Division 1	5	Ward 5		71.43	Partial Co					100	Compliant			
Division 1	Division 1	6	Ward 6		100	Compliant					100	Compliant			
Division 1	Division 1	7	Ward 7		20	Non Comp									
Division 1	Division 1	8	Ward 8		100	Compliant					71.43	Partial Co			
Division 1	Division 1	9	Ward 9		100	Compliant					88.89	Partial Co			
				Division 1 Average:	**56.32**						**61.33**				
				Division 1 Average:	**56.32**						**61.33**				
Division 2	Division 2	14	Ward 14		42.86	Non Comp					57.14	Partial Co			
Division 2	Division 2	16	Ward 16		71.43	Partial Co					100	Compliant			
Division 2	Division 2	17	Ward 17		33.33	Non Comp					100	Compliant			
				Division 2 Average:	**49.21**						**85.71**				
				Division 2 Average:	**49.21**						**85.71**				
Division 3	Division 3	13	Ward 13		71.43	Partial Co					57.14	Partial Co			

**compares two preselected time period using filter setting for equipment not in use*

Appendix VIII: Top Items Trustwide

TOP ITEMS REPORT

Company: Acute General Hospital
Date Range: 01/01/1900 to 23/06/2011
Site: [All Business Units]
Auditor: [All Auditors]
Audit Definition: (NEW)Managment of Patient Equipment V1.0
Report Category: [No Report Category Selected]
Call Type: [All Call Types]
Audit Type: Audit

No. of Results: 10
Ordered By: Non Compliant % as Descending

Audit	Section	Question	Audits	Questions	Qty	Non-Comp %	Qty	Compliant %
(NEW)Managment of Patient Equipment V1.0	Hoist Slings	Is Clinell Clean sticker completed and on the Hoist Slings that are stored and NOT in use (If No Clarify your observation in the box below)	11	11	7	63.6%	4	36.4%
(NEW)Managment of Patient Equipment V1.0	Patient Testing Equipment	Is Clinell Clean sticker completed and on the clean Patient testing equipment that is stored and NOT in use e.g. blood gas, blood glucose machines (If No Clarify your observation in the box below)	135	135	73	54.1%	62	45.9%
(NEW)Managment of Patient Equipment V1.0	Dressing Trolleys	Is Clinell Clean sticker completed and on the Dressings Trolley(s) that are stored and NOT in use (If No Clarify your observation in the box below)	118	118	56	47.5%	62	52.5%
(NEW)Managment of Patient Equipment V1.0	Blood Pressure Cuffs	Is Clinell Clean sticker completed and on the Blood Pressure Cuff(s) that are stored and NOT in use (If No Clarify your observation in the box below)	128	128	56	43.8%	72	56.2%
(NEW)Managment of Patient	Oxy Sat Probes	Is Clinell Clean sticker completed and on the Oxygen Saturation probe(s)that are stored and NOT in use (If No	126	126	55	43.7%	71	56.3%

Appendix IX: Annual Overview

ANNUAL OVERVIEW REPORT

Company: Acute General Hospital
Business Unit: Division 3
Year: 2011
Audit Definition: (NEW)Managment of Patient Equipment V1.0

Please note that Jun 2011 is an incomplete month and further audits may be added.

Position **1** of **3**

Position in Chain **0** of **0**

Store No.	Store Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD Average
13	Ward 13		78.1	92.67										85%
19	Ward 19		82.08	100										91%
18	Ward 18		73.89	85.1										79%
22	Ward 22		79.99	95.14										88%
15	Ward 15		95.24	95.68										95%
	Chain Average Score:		**81.86**	**93.72**										**87.79**

Top Five Departments in Chain

1.	Commodes	100%
2.	Hoist Slings	100%
3.	Cardiac Monitors	96%
4.	IV Pumps / Syr Drivers	92.45%
5.	Dressing Trolleys	90.57%

Bottom Five Departments in Chain

1.	Patient Testing Equipment	73.68%
2.	Hoists	83.33%
3.	IV Stands	84.21%
4.	Blood Pressure Cuffs	89.09%
5.	Oxy Sat Probes	89.09%

Top Five Non-Compliances in Chain

1.	Is Clinell Clean sticker completed and on the clean Patient testing equipment that is stored and NOT in use e.g. blood gas, blood glucose machines (If No Clarify your observation in the box below)	15
2.	Is Clinell Clean sticker completed and on the clean IV Stand(s) that are stored and NOT in use (If No Clarify your observation in the box below)	9
3.	Is Clinell Clean sticker completed and on the Blood Pressure Cuff(s) that are stored and NOT in use (If No Clarify your observation in the box below)	6
4.	Is Clinell Clean sticker completed and on the Oxygen Saturation probe(s)that are stored and NOT in use (If No Clarify your observation in the box below)	6
5.	Is Clinell Clean sticker completed and on the Dressings Trolley(s) that are stored and NOT in use (If No Clarify your observation in the box below)	5

References

1. Winning Ways. Working together to reduce Healthcare Associated Infection in England. Department of Health. December 2003.

2. ICNA audit tools for monitoring infection control standards 2004. Department of Health. 2004

3. The infection control audit: standardized audit as a tool for change, *Bryce et al* 2007. American Journal of Infection Control 35(4):271-283

4. National Audit Office study. The prevention, management and control of Healthcare Associated Infections in hospitals (ROCR-LITE/08/014/FT6). National Audit Office.

5. Evaluation of the objectivity of an infection control audit tool, Millward et al, November 1995 Journal of Hospital Infection 31(3): 229-33

6. Seeking solutions: scaling-up audit as a quality improvement tool for infection control in Gujarat, India, Anchalia M M, D'Ambruoso L. Int J Qual Health Care. 2011 Aug; 23(4):464-70.

7. Successful use of feedback to improve antibiotic prescribing and reduce clostridium difficile infection: a controlled interrupted time series, Fowler et al, 2007 Journal of Antimicrobial Chemotherapy 59(5): 990-995

8. Impact of 2 different levels of performance feedback on compliance with infection control process measures in 2 intensive care units, Assanasen et al, August 2008 American Journal of Infection Control 36(6): 407-413