



Will Hall
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London

ePMA team at St Georges Hospital in south London. We aim to eliminate medication errors and improve system efficiency. Safer, Better and Smarter is our motto.



Item	Metric
Number of core facilities	3
Number of beds	1,100
Full Time Equivalent	7,173
Total Headcount	7,700
Number of IP admissions /year	107,976
Number of IP Day cases / year	26,925
Number of OP attendances / year	683,490
Number of ED attendances / year	163,810
Number of operating theatres	29
Number of births /year	5,118
Number of critical care beds	90

Safer

Better Degree

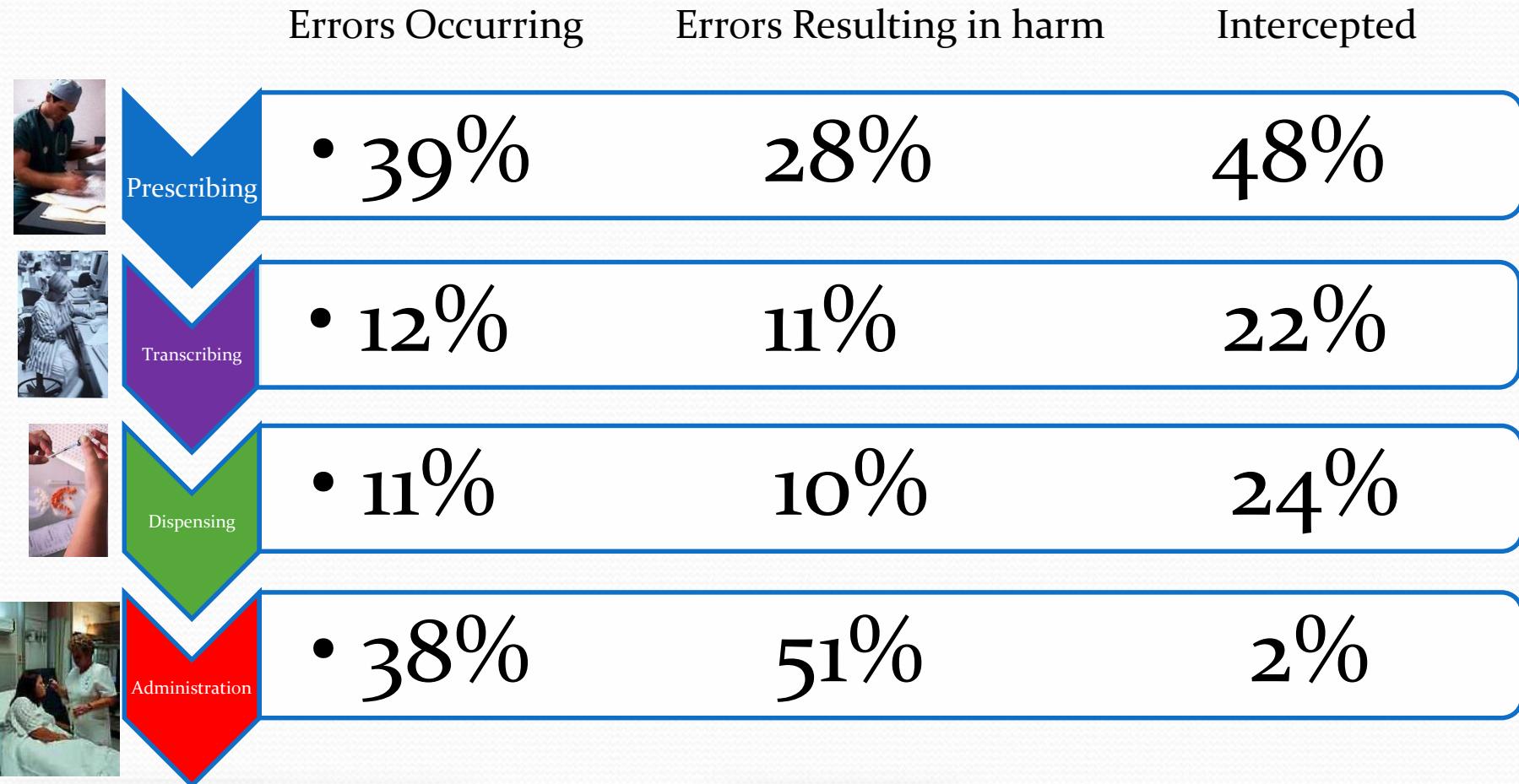
SMARTER

Medication Safety: Long term global vision

To perfect the medication delivery system to be safe for every patient, every time, while making it easy for caregivers to do the right thing, and impossible to do the wrong thing.

Source of preventable medication errors

Leape et al. JAMA 1995



Closed Loop Medication Management

Discharge Verification and electronic transmission to GP

Verify and document Medication History

Reconciliation of Medications

Discharge Reconciliation

Computerised Order Entry of Prescriptions with Decision Support

Positively identify medication, form, dose, route and time it is due using barcode technology

Electronic Verification and transmission to Pharmacy

Positively Identify patient using barcoded technology

Supply of medication with Barcode from Pharmacy/ Stock

Benefits



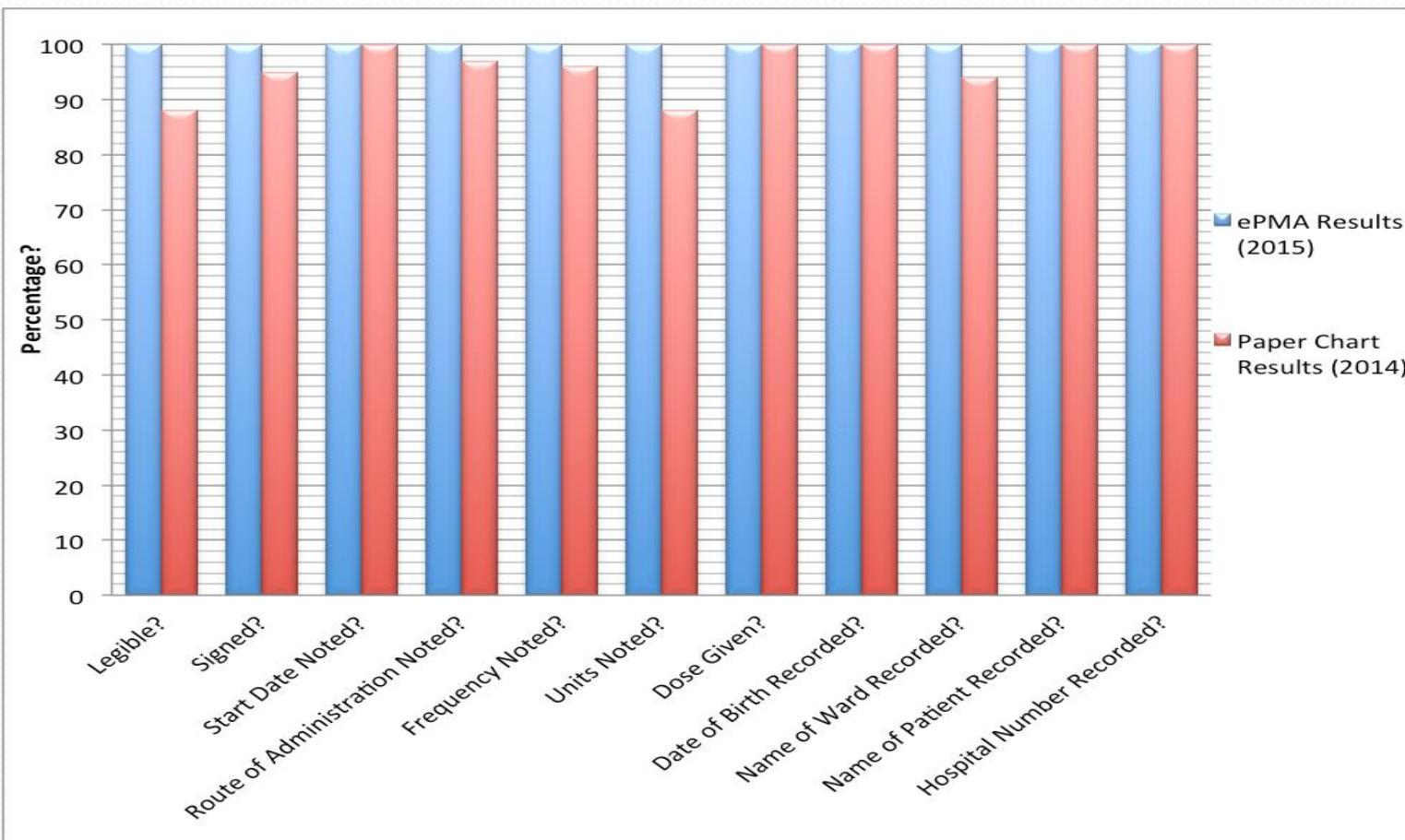
Will Hall
e Prescrib
ines Admini
London

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CPOE: Allergy Documentation

Jan 2015	Paper	ePMA
Documented	90%	100%
Nature	78%	86%
Signed	64%	100%
Allergy Alerts	-	189
Not Over-ridden		12

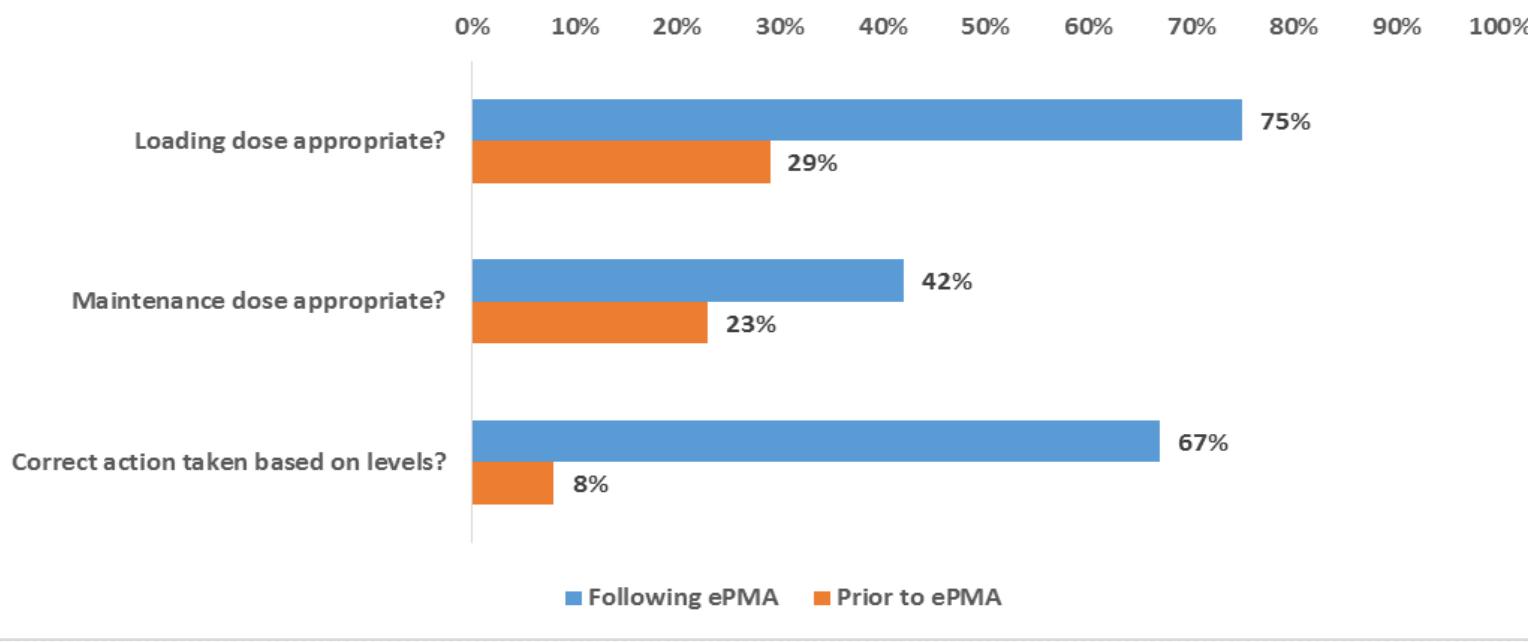
CPOE: Prescribing Standards



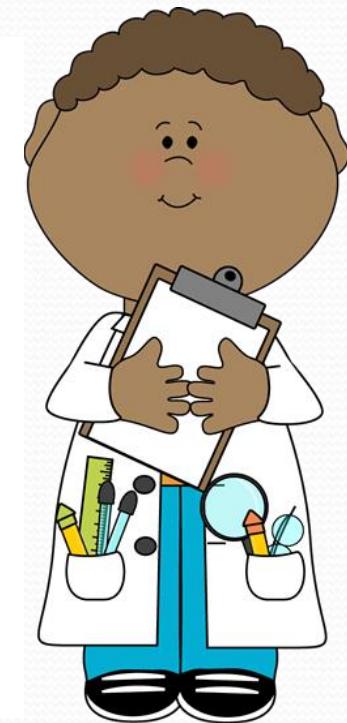
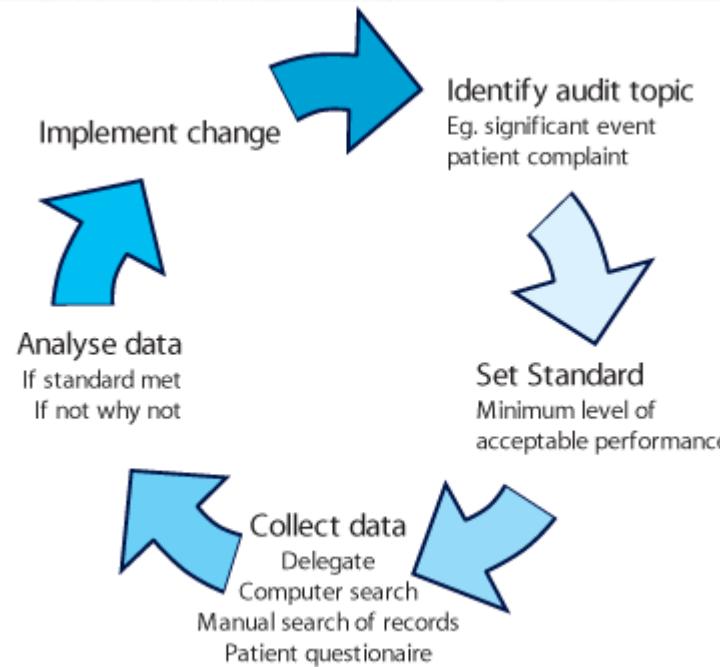
CPOE: Complex prescribing -

Vancomycin

A comparison of loading and maintenance dosing accuracy, and correct action taken during therapy monitoring



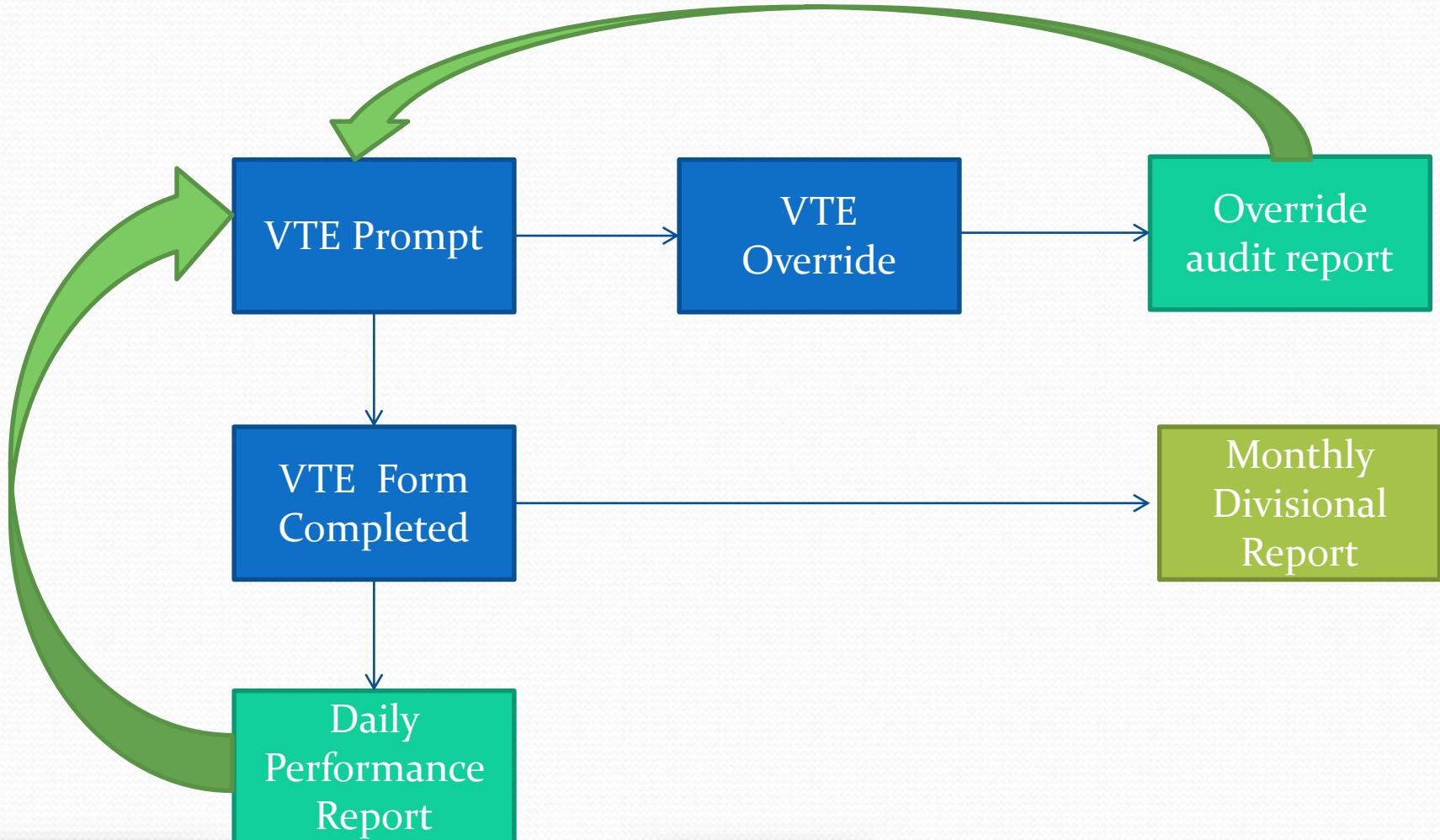
Audits



CPOE: Antimicrobial Stewardship

	Paper	ePMA
Q4 2013/14 – Q3 2014/15		
Indication on drug chart	87%	100%
Stop/Review date on chart	74%	100%

Venous Thromboembolism



Clinical Pharmacy

Activity category	ePMA activities (n = 967)	Paper based activities (n = 901)
Chart review	259	26.8%
Clinical review	89	9.2%
Walking	67	6.9%
Discussion	243	25.1%
Medicines information	14	1.4%
Looking/retrieving/returning	49	5.1%
Medicines reconciliation	73	7.5%
Supply	49	5.1%
Social activity	32	3.3%
Transcription check	1	0.1%
Documentation	43	4.4%
Administrative	48	5.0%

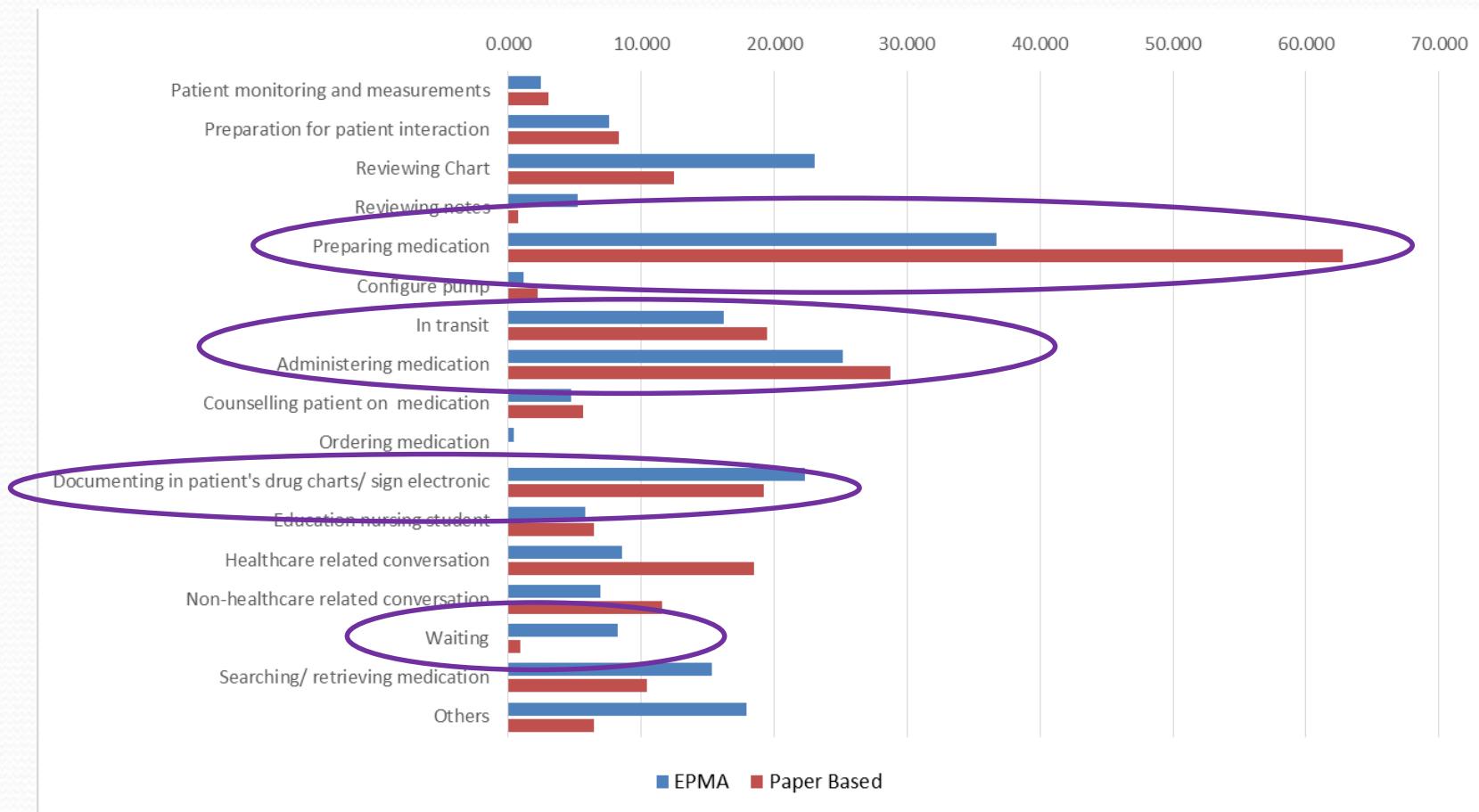
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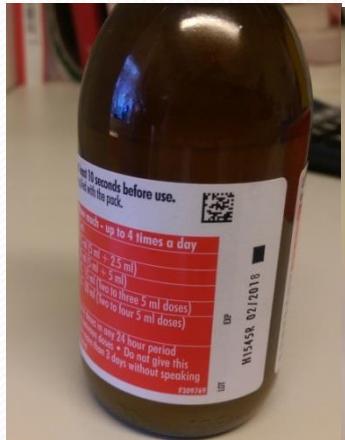
Medication Administration



Barcode Scanning

Measure	Total
Medications Administered	937,118
Patient Mismatches	813
Medication Mismatches	4515

Scanning Failures



Rivaroxaban
Tablet - Oral -Dose: 15 mg for DVT -Start: 08/Oct/15 18:00:00 BST -Stop: 08/Oct/15 18:00:00 BST -Supply: Dispense OSD
Take with or after food.

*Performed date/time: 08/10/2015 1833 BST

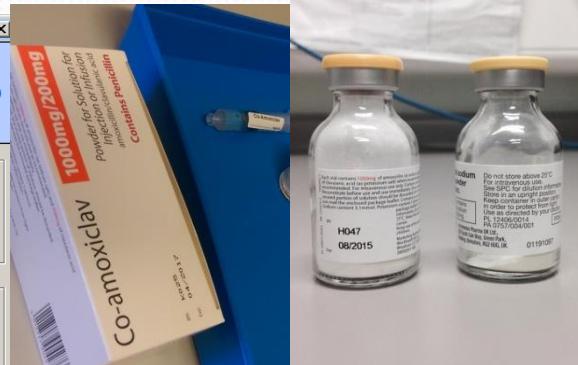
*Performed by: Hall NMP TEST, Will

Witnessed by

Care Admin Reason

Scan Unrecognised Barcode

Loose Dose Units
No Barcode on Original Pack
Barcode Not Recognised
Barcode Damaged
Other Document in Comment



Rivaroxaban 15 mg Volume: 0 ml

Diluent: <none> ml

*Route: Oral Site:

Total Volume: 0 Infused Over: 0 minute

08/Oct/2015 1700 BST 08/Oct/2015 1800 BST 08/Oct/2015 1900 BST 08/Oct/2015 2000 BST 08/Oct/2015 2100 BST

Not Given

Reason:

Comment

OK Cancel



HIMMS Level 6

EMR Adoption Model SM	
Stage	Cumulative Capabilities
Stage 7	Complete EMR integrates all clinical areas (e.g. ICU, ED, Outpatient) displacing all (medical) paper records in the hospital; Continuity of Care standards to exchange data; Data Warehouse used as basis for clinical and business analytics
Stage 6	Clinical Documentation interacts with advanced Decision Support (based on discrete data elements) AND Closed Loop Medication Administration
Stage 5	Integrated Image Management Solution (e.g. PACS) displaces all film-based images throughout the hospital
Stage 4	Electronic Ordering provides Clinical Decision Support (based on rules engines) in at least one clinical service area and/or for medication
Stage 3	Clinical Documentation as well as Electronic Ordering of Physician and/or Nursing Care services; includes tracking of Medication Administration (eMAR)
Stage 2	Clinical Data Repository / Electronic Patient Record allows collection and normalization of data from disparate clinical sources throughout the hospital
Stage 1	Information Systems for major ancillary departments (Laboratory, Radiology, Pharmacy) are installed or data output from external service providers are processed electronically
Stage 0	Information Systems for major ancillary departments (Laboratory, Radiology, Pharmacy) are not installed or data output from external service providers cannot be processed electronically



St George's becomes largest UK hospital to receive HIMSS digital maturity award

St George's University Hospital NHS Foundation Trust awarded with HIMSS Stage 6 EMRAM for progress on its journey towards a paperless NHS

St George's University Hospital NHS Foundation Trust in London has become the second and largest trust in the UK to be validated at Stage 6 of the international acute Electronic Medical Record Adoption Model (EMRAM). The trust, which has more than 1000 beds and serves a population of two million people, is the first site to be accredited following an onsite visit by HIMSS inspectors.

John Rayner, Director of Professional Development HIMSS UK said: "HIMSS feels that the trust has made exceptional progress towards healthcare automation in the last 2 years."

‘The error of one
moment becomes the
sorrow of whole life.’

A Chinese Proverb

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