

Challenges of the Electronic Medical Record

Robert Day

Director Emergency Department

Royal North Shore Hospital



A Brief History of eMR in NSW Hospitals

- Early 2000's - EDIS - computerised patient tracking system
, paper based records, not connected to rest of the hospital
- 2006/7 - initial NSW Treasury funding for eMR
- 2008 Cerner Firstnet roll out to NSW EDs began
- 2010 Business case approved to extend eMR throughout
NSW hospitals

Aims of the eMR

- Integrated system of patient records, pathology , radiology
- Immediate access to past records
- Access to patient records across sites
- Better quality, safety, efficiency of patient care
- Management data

2011 – negative reviews of Firstnet

- Independent review by Deloitte
 - Reported 98% users dissatisfied
 - Slow
 - Unreliable
 - Decreased clinical productivity
 - Non-intuitive
 - Irrelevant steps performing basic functions

“As with all major IT projects, there have been implementation issues,” the spokesman said.

NSW Health to act on FirstNet issues

By Liz Tay
Aug 3 2011
6:34AM

0 Comments



RELATED ARTICLES

Deloitte review sparks 'comprehensive program'.

NSW Health has identified issues with configuration, training and support of its FirstNet clinical information system (CIS) following a government-commissioned independent review.

Implementation of the C and was expected to improve more than 200 emergency



FirstNet Remediation Program Update

New program to improve FirstNet

The FirstNet Remediation Program has been established to improve the operation and effectiveness of FirstNet in hospital emergency departments.

The FirstNet Remediation Program with ED clinicians input will develop and implement hospital specific plans to improve:

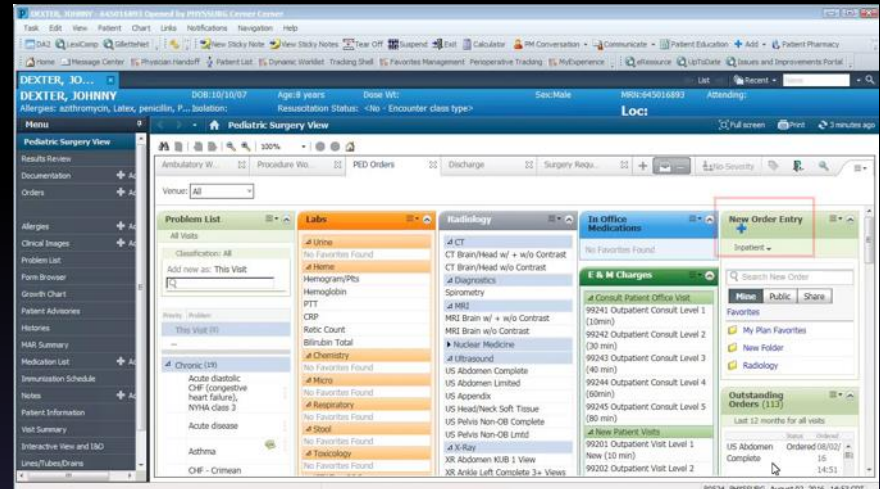
- Immediate usability
- Access, performance and work processes
- Functionality
- Training and support.

for
staff

- 2013 – eMR2
- 2014, 2015 - further major upgrades
- Introduction of eMR to all NSW hospitals
- Implementation across hospital system:
 - Inpatient – PowerChart
 - operating theatres - SurgiNet
 - ambulatory care/ OP care

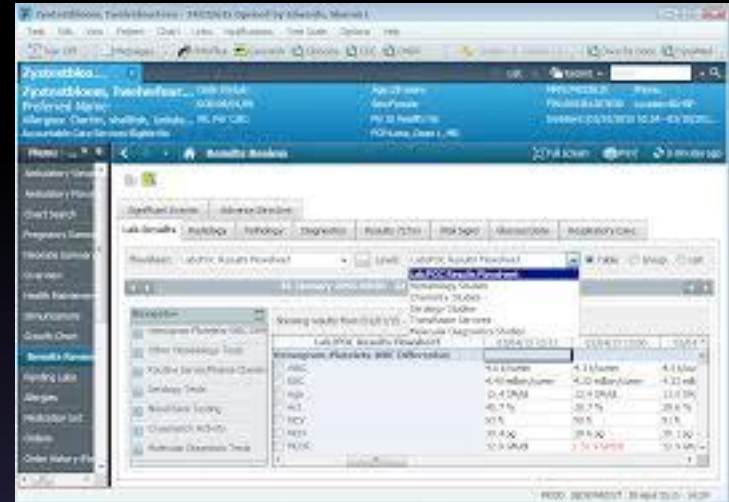
Where are we now in ED?

- Firstnet
 - Much better
 - More reliable
 - Universal acceptance
 - All documentation
 - Pathology, radiology ordering and results
 - eMeds
 - Electronic observation charts
 - Access to previous and other health records
 - Most paper gone

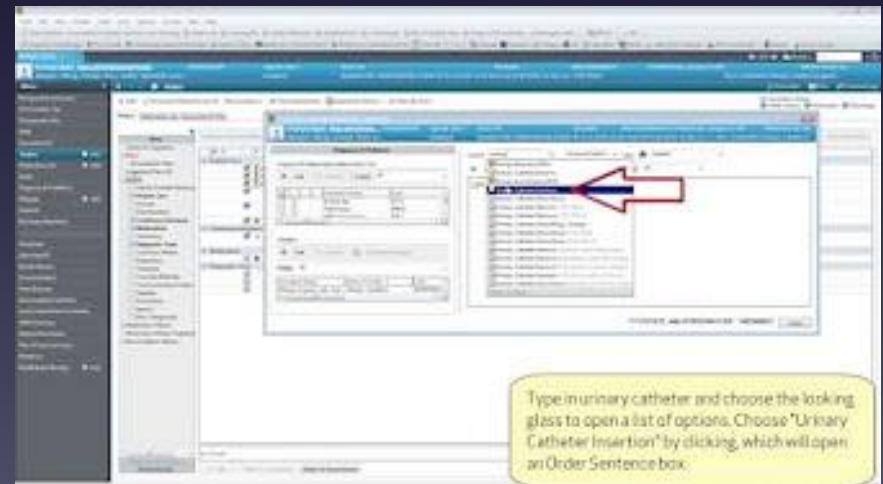


Multiple other facets to eMR

- PowerChart - inpatients



SurgiNet – operating theatres



Imaging RIS- PACS

NSW HealtheNet



eRIC – ICU



HealtheNet: Better healthcare

In NSW, a patient's health information is often spread across a vast number of different locations and incompatible computer systems.

HealtheNet is an eHealth NSW program that connects these disjointed systems. It provides NSW Health clinicians with secure and immediate access to a patient's recent medical history from across all NSW Local Health Districts and a patient's My Health Record.

This means that irrespective of which NSW Health service a patient attends, their treating doctors, nurses and allied health providers will have the information they need to deliver the best care.

Watch a short introductory video below.



Current eMR status

- Broad and highly complex medical record
- Held on multiple systems / variable integration
- Some paper remnants
- Increasing amounts of patient information available
- “Source of Truth”



Issue for doctors and the legal system



Doctors

- Vital information “hidden” in many areas
- Often no pointers
- Time constraints to access all available information
- Is it factual?
- Documentation time constraints – use of shortcuts
- eMeds

Medical Reviewers

- Are all relevant documents there?
- Preformatted notes/ templates
- “cut and paste”
- Loss of flow – modified notes, non contemporaneous notes
- Loss of diagnostic thought process

Legal / Coronial system

Subpoena to hospital to produce evidence



Record transferred to paper by hospital clerical staff

- Not all available electronic records are produced
- Transience of some documents - Maybe impossible to retrieve all

Display : All

Arranged By: Date	Newest At Top
Patient Imaging Folder	12/03/2019 16:49
Patient Imaging Folder	
Xray Chest	12/03/2019 16:49
Chest Xray	Contributor_system, GERIS
Progress Note	12/03/2019 15:56
ED assessment	Crawford, Nicola (JMO)
ED Pre Arrival Note	12/03/2019 15:40
ED Pre Arrival Note	Rogers, Gregory (Admin)
ED Approved Protocol ...	12/03/2019 15:27
ED Approved Protocol	Petursson, Gunnar (RN)
Triage Form - Text	12/03/2019 15:21
Triage Form RNS	Moodey, Charlotte (RN)
Consult Note	12/03/2019 15:17
Consult Note	Blennerhassett, Richard (...)
OMIS Progress Note-N...	06/03/2019 0:00
ProgressNote RN eMR	
Correspondence - NSL...	05/03/2019 17:36
CORRESPONDENCE - NS...	Scanned, Document
OMIS-Systemic Therap...	05/03/2019 0:00
TreatmentSummary eMR	
OMIS-Systemic Therap...	03/03/2019 0:00
TreatmentSummary eMR	
OMIS Progress Note-N...	01/03/2019 0:00
ProgressNote RN eMR	
Consult Note	27/02/2019 16:17
Consult Note	Blennerhassett, Richard (...)
Correspondence - Glob...	27/02/2019 13:00
GTSLETTER	Contributor_system, G...
Progress Notes	27/02/2019 13:00
PROGRESS NOTES	Scanned, Document
Progress Note Nursing	22/02/2019 15:36
Progress Note Nursing	Ramage, Anna (RN)
Progress Note Medical	22/02/2019 14:11
S/B Dr LAM	Selvaraj, Dhinushika (JMC)
Progress Note Pharmacy	22/02/2019 14:00

Triage RNS

Triage Presenting Information: presents from cancer suite
background of lymphoma

unwell today

fevers and sorethroat

tachy @ 140bpm

paracetamol on board - afebrile at time of triage

lethargic and looks unwell

last chemno 13/7ago

Triage Information: **Total ED PRESENTS Last-week(0) month(1) year(3)

DCP GENERIC CODE

Triage Visit Reason: Fever

Triage Date/Time: 12/03/2019 15:21

Triage Specialty: Sepsis Pathway

Triage Category: 2

Triage Group: Emergency RNS

Type of Visit: Emergency Presentation

Respiratory Rate: 26 brpm (H)

Oxygen Saturation: 99 %

Peripheral Pulse Rate: 140 bpm (H)

Systolic Blood Pressure: 152 mmHg

Last Name

First Name

Location

PreArrival (4)

Gender

Other Information

manic, coming from gp
phx depression and anxiety.
fax coming to main arena

I

DOB:

MRN:
Age:72 yearsRoyal North Shore Emergency [12/03/19 13:56 - <No - Discharge Date>]
Sex:Male

List Recer

ED Summary MPage

Loc:Emergency OP RNS

Full screen

100%

ED Summary

Emergency Department Timeline

Patient Information

Allergies (2) +

All Visits

aspirin
penicillin

Alerts (0) +

All Visits

No results found

Triage Information

Selected Visit

Triage

Triage Category : 4

Triage Date/Time : 12/03/19 13:56

Triage Presenting Information : presents today with soboe for last 3/52 denies chest pains seen own cardio today - advised ed attendance nil lower limb swelling o/a obs stable talks in full sentences

Diagnoses

Selected Visit

No results found

Problems (0) +

Social History (0)

All Visits

Vital Signs and Observations

Selected Visit

	Latest within	Previous within	
BP	103/68 91 mins	106/65 4 hrs	--
HR	83 91 mins	82 4 hrs	--
Temp	36.2 91 mins	36.5 4 hrs	--
Oxygen Saturation	95 91 mins	98 4 hrs	--
Peripheral Pulse Rate	83 91 mins	82 4 hrs	--
Respiratory Rate	16 91 mins	17 4 hrs	--
Triage Presenting Information Form	presents today with soboe for last 3/52 denies chest pains seen own cardio today - advised ed attendance nil lower limb swelling o/a obs stable talks in full sentences 4 hrs		

Assessment Scores (0) +

Selected Visit

No results found

Lines, Tubes, and Drains (0)

Documentation (7) +

Outstanding Orders (3)

Selected Visit

	Status
thiamine	Ordered
thiamine	Ordered
Consult Pharm Clinical Review	Ordered

New Order Entry +

HealthNet

HealthNet

Document Launcher

Emergency

Adult

Medical

General

ED Medical Progress Note

Discharge Referral ED (eMEDS)

ED Medical Procedure Note

Acute Surgical Unit Form RNS

Assessments

ED Assessment

ED Ward Round

ED Management Plan

Consult Note

ED Free Text with Diag

Additional Tools

View Adult ED Observations

General Exam Adult

ED SSU Medical Progress

Blood Alcohol Sample For

External Medical Consult

ED Assessment (Dragon)

ED SMO Assessment

Trauma Note

Short Exam

ICU Spinal Assessment

iView Physician View

ContinuousDoc



NSCCAHS AUID

Male / (72 years)

(52303022@cerner.nsc.ca...)

Patient Summary Images (EIR) Pathology Linked EHR Medication

Ryde MRN 0268294

Documents

My Health Record - Access Code

My Health Record - Emergency Access

There are no items to display

Alerts (Discharge Summary History)

No Alerts found

Allergies & Adverse Reactions (Discharge Summary History)

No Allergies or Adverse Reactions found

Last 5 NSW Health Pathology Results - (for all Pathology results: see Pathology Tab)

No Results Found

Encounter History - Inpatient & Emergency

Admission Date	Discharge Date	Admission Reason	Visit Type	Speciality	Facility	Clinician
12-Mar-2019		Respiratory - shortness of breath	Emergency	Emergency Medicine	Royal North Shore Hospital	BOWRA Ju

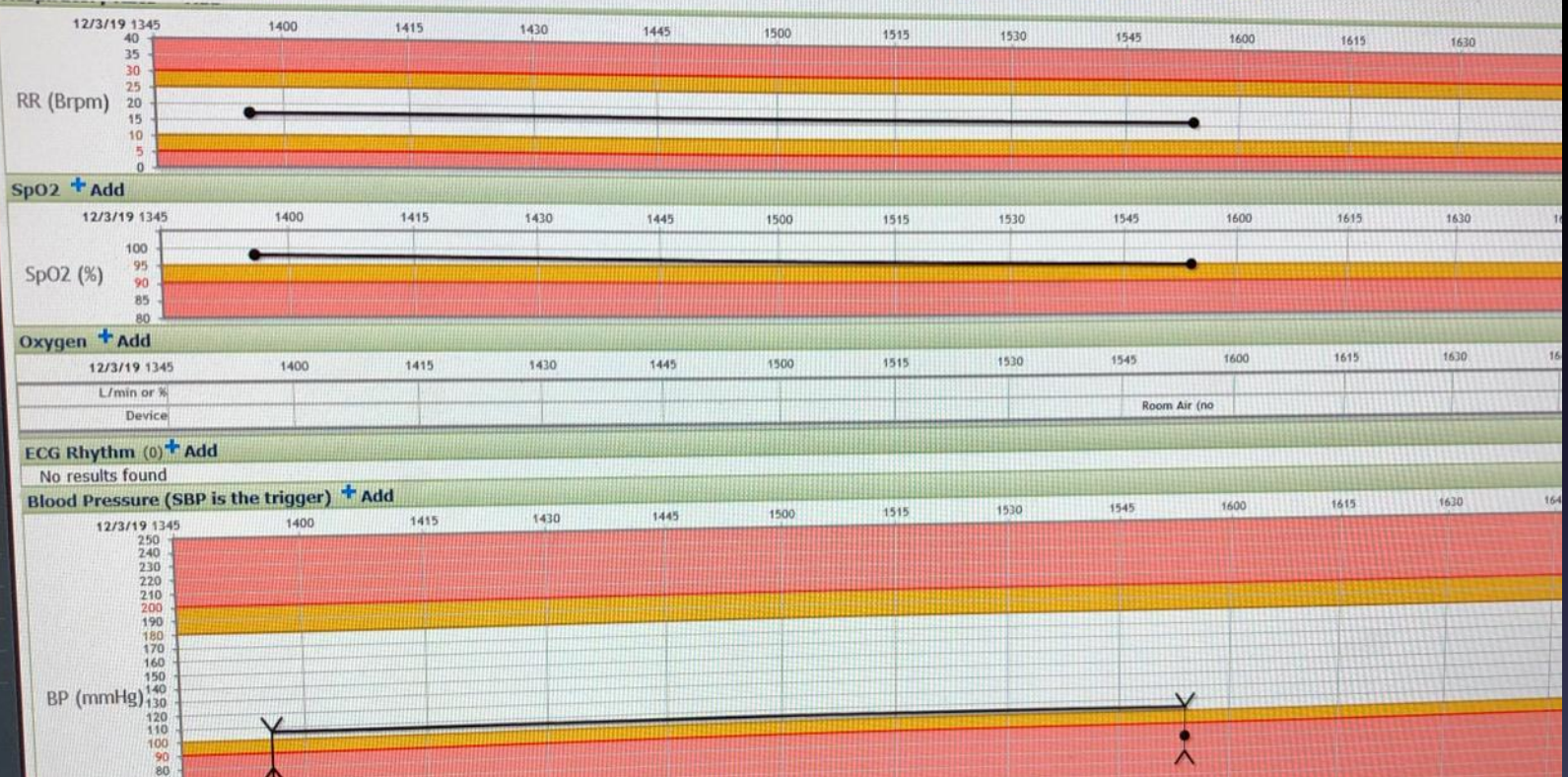
SAGO Adult

Observation Frequency: Not specified. Follow local protocols.

Timeframe: 4 hours 12/03/2019 17:25 Clear Changes

ACC/Vary Freq. Review by: not specified

RR SpO2 BP HR I Forms



Alerts (2)



All Visits

Risk of pressure area

Diabetic (Diabetes) T2DM on insulin

Triage Information

Selected Visit

Triage

Triage Category : 2

Triage Date/Time : 12/03/19 15:21

Triage Presenting Information : presents from cancer suite background of

previous within	Outstanding Orders (20)
	Selected Visit
--	paracetamol Ordered 12/03/19 17:18
--	allopurinol Ordered 12/03/19 17:17
--	metoclopramide Ordered 12/03/19 17:17
--	sulfamethoxazole-trimethoprim Ordered 12/03/19 17:17
--	valaciclovir Ordered 12/03/19 17:17
--	pantoprazole Ordered 12/03/19 17:17
--	insulin aspart-insulin aspart protamine Ordered 12/03/19 17:16
--	metformin Ordered 12/03/19 17:16
--	Respiratory Virus Multiplex PCR Ordered 12/03/19 17:08
--	Baseline Vital Signs Ordered 12/03/19 17:04
--	Height and Weight Form Ordered 12/03/19 17:04
--	Adult Admission Assessment Ordered 12/03/19 17:03
--	Blood Culture Ordered 12/03/19 15:59
--	oxycodone Ordered 12/03/19 15:50
--	gentamicin Ordered 12/03/19 15:50
--	piperacillin-tazobactam Ordered 12/03/19 15:45
--	Blood Culture Ordered
--	Consult Pharm Clinical Review Ordered
--	Diabetes Patient Review Ordered
--	Peripheral insertion central catheter line Canceled

Displayed: All Active Orders All Inactive Orders All Orders (All Statuses)			
Order Name	Status	Details	
Medical Review			
VTE Risk Assessment	Ordered	12/03/2019 17:04	
Patient Care			
Adult Admission Asse...	Ordered	12/03/2019 17:04	
Height and Weight Fo...	Ordered	12/03/2019 17:04	
Baseline Vital Signs	Ordered	12/03/2019 17:04, Complete Baseline Vital Signs	
Medications			
paracetamol (paracet...	Ordered	1,000 mg = 2 tab(s), Oral, Tablet, QID, PRN for pain, First Dose: 12/03/2019 17:18, Emergency RNS ASB	
metoclopramide (met...	Ordered	10 mg = 1 tab(s), Oral, Tablet, TDS, PRN for nausea/vomiting, First Dose: 12/03/2019 17:17, Emergency RNS ASB	
allopurinol	Ordered	100 mg, Oral, Tablet, morning (with or after food), First Dose: 13/03/2019 08:00, Emergency RNS ASB	
insulin aspart-insulin aspart protamine (No...	Ordered	16 unit(s), Subcut, Suspension-Inj, BD (with or after food), Indication: Diabetes, Inpatient Pharmacy (RNS)	
gentamicin	Ordered	320 mg, IV Infusion, Solution-Inj, ONCE, First Dose: 12/03/2019 16:00, Stop Date: 12/03/2019 16:00, Emergency OP RNS, Dose on ideal body weight (not Target Dose: gentamicin 5 mg/kg 12/03/2019 15:50:44	
piperacillin-tazobacta...	Ordered	4.5 g, IV Infusion, Vial, 8 hourly, Indication: Febrile neutropenia - 1st line therapy, Approval: ED as per Dr Arthur, Inpatient Pharmacy (RNS)	
pantoprazole	Ordered	40 mg, Oral, Tab-EC, morning, First Dose: 13/03/2019 08:00, Emergency RNS ASB	
oxycodone (Endone)	Ordered	5 mg, Oral, Tablet, ONCE, STAT, First Dose: 12/03/2019 15:59, Indication: pain, Emergency OP RNS	
metformin (metformin 500 mg oral modified ...	Ordered	500 mg = 1 tab(s), Oral, Tab-MR, morning (with or after food), First Dose: 13/03/2019 08:00, Emergency RNS ASB	
valaciclovir (Valtrex)	Ordered	500 mg, Oral, Tablet, morning, First Dose: 13/03/2019 08:00, Emergency RNS ASB	
sulfamethoxazole-trime...	Ordered	800/160mg, Oral, Tablet, TWICE a week (Mon & Thu), Emergency RNS ASB	
Pathology Tests			
Blood Culture	Ordered	Contact Ph/Page: ED, Sched DT/TM: 12/03/2019 15:45, Specimen: Blood, Antibiotic Therapy: Nil, LOS: < 3 days, Lines or in-situ devices, Endocarditis: Un	
Blood Culture	Ordered	Contact Ph/Page: ED, Sched DT/TM: 12/03/2019 17:03, Specimen: Blood, Antibiotic Therapy: Other, LOS: < 3 days, Lines or in-situ devices, Endocarditis: Un	
Respiratory Virus Mult...	Ordered	Contact Ph/Page: ED, Sched DT/TM: 12/03/2019 17:08, Specimen: Throat	
Calcium Magnesium ...	Completed	Sched DT/TM: 12/03/2019 15:24	
Electrolytes Urea Crea...	Completed	Sched DT/TM: 12/03/2019 15:24	
Full Blood Count	Pending	Sched DT/TM: 12/03/2019 15:24	
Liver Functions	Completed	Sched DT/TM: 12/03/2019 15:24	
C Reactive Protein (C...	Completed	Sched DT/TM: 12/03/2019 15:25	
Lactate Dehydrogena...	Completed	Sched DT/TM: 12/03/2019 15:25, Blood, Anticoagulant: None	
Coagulation Profile	Completed	Sched DT/TM: 12/03/2019 15:25	

BP Observation Chart

iView

Allergies + Add

Diagnosis, Alerts & Problems

Histories

Orders + Add

Medication List + Add

MAR

MAR Summary

Clinical Notes View

Forms

Documentation + Add

ContinuousDoc

Activities / Interventions

Advanced Growth Chart

Appointments


Patient Status


TAA


ED Quick Orders (STOP)


LearningLive


100 mg, Oral, Tablet,
morning (with or after
food), First Dose: 13/03/2...


 **gentamicin**
320 mg, IV Infusion,
Solution-Inj, ONCE, First
Dose: 12/03/2019 16:00, ...


 **insulin aspart-insulin
aspart protamine
(NovoMix 30 FlexPen)**
16 unit(s), Subcut, Suspe...


 **metformin (metformin 500
mg oral modified release
tablet)**
500 mg = 1 tab(s), Oral, T...


 **oxycodone (Endone)**
5 mg, Oral, Tablet, ONCE,
STAT, First Dose:
12/03/2019 15:59, Stop D...

 **pantoprazole**
40 mg, Oral, Tab-EC,
morning, First Dose:
13/03/2019 08:00, Emerg...

 **piperacillin-tazobactam
(Tazocin 4 g-0.5 g
intravenous injection)**
4.5 g, IV Infusion, Vial, 8
hourly, Indication: Febrile
neutropenia - 1st line th...

 **sulfamethoxazole-trimetho
(Bactrim DS 800 mg-160
mg oral tablet)**
800/160mg, Oral, Tablet, ...

 **valaciclovir (Valtrex)**
500 mg, Oral, Tablet, ...

 **valaciclovir (Valtrex)**
500 mg, Oral, Tablet, ...

@1600

@1930

@0730

@1930

@0800

STAT

@0800

@1600

@0000

@0800

@1600

@0800

PATIENT INFORMATION					
Age: 35 Years		Language: English		Sex: Male	
Visit Id:				Marital Status: Never Married	
				Ethnicity:	
COUNTER INFORMATION					
Arrival Date: 12/03/19 15:20:00				Arrival Mode: Private Car	
Reason: 1: Fever				Discharge Disposition: Admitted To Ward/Inpt/Non Critical Unit	
Charge Date:		Diagnosis:		Transfer Destination:	
Referred To Loc:		Referred By: Emergency Department		Encounter Class:	
Counter Type: Inpatient		Medical Service: Haematology			
Level:					
CHECKING INFORMATION					
Checking Group: Emergency RNS		Person Id:		Encounter Id:	
Checking Id	Checkin Date	Checkout Date	LOS	Acuity	Specialty
541194	12/03/19 15:20:00		000 02:07	2	Sepsis Pathway
PROVIDER ASSIGNMENTS					
Name	Role		Assigned dt tm		
Edwin, Sarah (RN)	Nurse		12/03/19 16:56:52		
Worford, Nicola (JMO)	Medical Officer		12/03/19 15:23:50		
EVENT INFORMATION					
Event Name	Event Status	Request dt tm		Start dt tm	
Arrive	Complete	12/03/19 15:20:00		12/03/19 15:20:00	
Doctor Exam	Complete	12/03/19 15:20:00		12/03/19 15:23:50	
Registration	Complete	12/03/19 15:20:00		12/03/19 15:24:39	
Age	Complete	12/03/19 15:20:00		12/03/19 15:21:00	
Location Assigned	Complete	12/03/19 15:20:00		12/03/19 15:20:00	
Protocol Commenced	Complete	12/03/19 15:27:00		12/03/19 15:27:00	
Acuity Color	Start	12/03/19 15:27:00		12/03/19 15:27:00	
Protocol Commenced_1	Request	12/03/19 15:27:00			
Limit	Start	12/03/19 15:51:13		12/03/19 15:51:13	
Bed Requested	Complete	12/03/19 15:51:14		12/03/19 16:18:32	
Bed Assigned	Complete	12/03/19 16:18:32		12/03/19 16:18:32	
Bed Requested	Request	12/03/19 16:18:45			
Limit-Bed Not Ready	Request	12/03/19 16:25:49			
Nurse Exam	Complete	12/03/19 16:56:52		12/03/19 16:56:52	
LOCATION INFORMATION					
SIGNED LOCATION					
Nurse Unit: Emergency RNS ASB	Room: AA1			Bed: 16	
LIST OF ALL LOCATIONS					
Arrival	Nurse Unit	Room	Bed	Updated By	
12/03/19 15:20:00	Emergency OP RNS	Adult ASB WR		Steenbergen, Karen	
12/03/19 16:18:32	Emergency OP RNS	AA1 ASB	16	Steenbergen, Karen	
ORDERS INFORMATION					
Start dt	Order Mnemonic	Catalog Type	Status	S	
12/03/19 15:21:00	Diabetes Patient Review	Discern Rule Order	Ordered	1	
12/03/19 15:21:01	Consult Pharm Clinical Review	Consults	Ordered	1	
12/03/19 15:24:00	Liver Functions	Laboratory	Completed	1	
12/03/19 15:24:00	Calcium Magnesium and Phosphate Levels	Laboratory	Completed	1	
12/03/19 15:24:00	Electrolytes Urea Creatinine Levels	Laboratory	Completed	1	
12/03/19 15:24:00	Full Blood Count	Laboratory	Pending Complete	1	
12/03/19 15:25:00	C Reactive Protein	Laboratory	Completed	1	
12/03/19 15:25:00	Lactate Dehydrogenase Level	Laboratory	Completed	1	
12/03/19 15:25:00	Coagulation Profile	Laboratory	Completed	1	
12/03/19 15:45:00	Blood Culture	Laboratory	Ordered	1	
12/03/19 15:55:00	XRays Chest	Radiology	Completed	1	
12/03/19 15:59:00	oxycodone	Pharmacy	Ordered	1	
12/03/19 16:00:00	gentamicin	Pharmacy	Completed	1	
12/03/19 16:00:00	piperacillin-tazobactam	Pharmacy	Ordered	1	
12/03/19 16:00:00	piperacillin-tazobactam	Pharmacy	Ordered	1	
12/03/19 17:03:00	Blood Culture	Laboratory	Ordered	1	
12/03/19 17:04:57	Height and Weight Form	Patient Care	Ordered	1	

ent | Modify

Adm Need Interview	<input type="checkbox"/> AH Cons SocialWork	<input type="checkbox"/> Consult - Ortho	<input type="checkbox"/> Doctor Exam	<input type="checkbox"/> Mec	<input checked="" type="checkbox"/> ALL EV
Adm Papers Attended	<input type="checkbox"/> AlliedHealth Consult	<input type="checkbox"/> Consult - Paed/Other	<input type="checkbox"/> ED Location Assigned	<input type="checkbox"/> Mec	<input type="checkbox"/> 4Hr
Admission Undone	<input type="checkbox"/> ASET Consult	<input type="checkbox"/> Consult - Surgical	<input type="checkbox"/> ED Physician Exam	<input type="checkbox"/> Mec	<input type="checkbox"/> Ac Cha
Admit-Bed Not Ready	<input type="checkbox"/> Bed Assigned	<input type="checkbox"/> D&A Consult	<input type="checkbox"/> Fascia Iliac Post Pr	<input type="checkbox"/> MH	<input type="checkbox"/> Acute
Admit-Bed Ready	<input type="checkbox"/> Cardiac Referral	<input type="checkbox"/> D/C Letter Completed	<input type="checkbox"/> Fascia Iliac Pre Pro	<input type="checkbox"/> MIS	<input type="checkbox"/> Admit/D
Admit-No Bed	<input type="checkbox"/> CIN Review	<input type="checkbox"/> Delay Entered	<input type="checkbox"/> Inpatient team	<input type="checkbox"/> Mov	<input type="checkbox"/> Alerts
AH Cons APAC	<input type="checkbox"/> Clinician Collect	<input type="checkbox"/> Depart Ready	<input type="checkbox"/> Interpreter	<input type="checkbox"/> Nav	<input type="checkbox"/> Amb
AH Cons Other	<input type="checkbox"/> Consult - ASU	<input type="checkbox"/> Diagnosis Completed	<input type="checkbox"/> Intubated	<input type="checkbox"/> Nil E	<input type="checkbox"/> Arrival
AH Cons Pharmacy	<input type="checkbox"/> Consult - Medical	<input type="checkbox"/> Diet	<input type="checkbox"/> Med Rec 2nd Storage	<input type="checkbox"/> NP I	<input type="checkbox"/> BTF
AH Cons Physio	<input type="checkbox"/> Consult - Obs&Gynae	<input type="checkbox"/> Disaster/Major Pt	<input type="checkbox"/> Medical Record in ED	<input type="checkbox"/> Nurs	<input type="checkbox"/> Depart A

III

>

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III

☒ Request
 ☒ Start
 ☐ Complete
 ☐ Automated

Time	Event	Type	Status	User	Order
2/03/2019 17:35:55	Bed Requested	Admit/Depart	Request	Fielding, Bronwyn	
2/03/2019 17:35:52	Admit	Admit/Depart	Start	Fielding, Bronwyn	

Review of Recent ED Medicolegal Cases

- Little evidence of improved documentation with eMR
 - Preformatted notes with irrelevant history/ exam
 - Reviews by senior staff poorly documented
 - Cut and paste into discharge summaries
 - Preformatted discharge instructions
 - Advice sought but details not written down
 - Often no differential diagnosis
 - Poor synthesis of thought processes - eg consideration of other diagnoses

Where to for eMR?

- System complexity will continue to increase
- Integration of systems will improve
- Volume of patient information available will rise

Implications

- Clear benefits for patients and clinicians
- Potential privacy issues
- Vital to have correct information in record
- Information overload

Legal system

- Accessing all the available relevant material
- How is the record accessed?
- What is the patient's "health record"?
- Interpreting ever larger volumes of information
- What is reasonable to have accessed during an episode of care?

