Gathering and Designing a Multi-Disciplinary Surgical Clinical Ward Handover System at the SAN Hospital

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COMP5703

Information Technologies Project

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under the direction of

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Surgical Clinical Ward Handover System

Abstract

Acknowledgements

Contents

Glossary

A Infection by Airbourne.

ACAT Age Care Assessment Team.

AD As Desired Diet (anything the patients wants to eat).

AIN Assistant in Nursing.

AMO Accredited Medical Officer.

Analgesia pain medication.

Anti-emetic medication against nausea.

Arthroplasty plastic surgery of a joint.

B Bowels.

BD twice a day.

BGL Blood Glucose Level.

Bolus a rounded mass of food or pharmaceutical preparation ready to swallow, or such a mass passing through the gastrointestinal tract.

BP Blood Pressure.

BSL Blood Sugar Level.

C infection by contact.

CF Clear Fluids.

CMO Career Medical Officer (doctor on call).

Comorbidity other illnesses that a patient has that are not part of the diagnosis but affect the health of the patient and possibly the treatment (ie. Diabetes, Hypertension).

Cont Continence (bowels).

CVC Central Venus Catheter.

D infection by droplet.

DW **D**ry **W**eight (weight of patient before breakfast).

Dx diagnosis.

EDD **E**stimated **D**ate of **D**ischarge.

EEN **E**ndorsed **E**nrolled **N**urse. Have completed further medication endorsement. Allowed to administer Schedule 2,3, and 8 medications via all routes except intravenous, epidural, intraventriuclar and intrathecal. Any medication which requires checking prior to administration must be checked with a RN or Midwife. Excluded also from administering fluids or medications via CVC, PICC and femoral lines as well implanted devices or arterial lines.

EN **E**nrolled **N**urse. Nurses undertook 18/24 month course at TAFE or related health facilities). Even more restricted than EEN.

FF **F**ull **F**luids incl. milky drinks.

HITH **H**ospital **i**n **t**he **H**ome.

Hx history.

IDC **I**n-**D**welling **C**atheter.

IM **I**ntra**m**uscular (routed into muscle tissue).

IVC/F **I**ntravenous **C**annula (a catheter that is inserted into a vein for supplying medications or nutrients directly into the bloodstream) / **I**ntravenous **F**luids (fluids given through a vein inserted catheter.

L Light Diet.

LOS **L**ength **o**f **S**tay of a patient.

MO **M**edical **O**fficer.

MRN **M**edical **R**ecord **N**umber.

MRO **M**ethacilin **R**esistant **O**rganism; an organism that shows resistance to Methicillin, a very strong antibiotic.

MRSA **M**ulti **R**esistant **S**taphylococcus **A**ureus; any strain of Staphylococcus aureus that has developed resistance to beta-lactam antibiotics, which include the penicillins (methicillin, dicloxacillin, nafcillin, oxacillin, etc.).

N Neutropenic (very low white blood cell count). Caution must be taken by staff as they could pass something to a patient.

NBM **N**il **B**y **M**outh.

NCR **N**urse **C**are **R**ecord.

ND night shift.

NFR **N**ot **F**or **R**esuscitation.

NG **N**asal-**G**astric Tube.

NP **N**urse **P**ractitioner is a RN educated and authorised to function autonomously and collaboratively in an advanced and extended clinical role. Requires addition 1.5-2 years of study.

NUM **N**ursing **U**nit **M**anager.

OT **O**ccupational **T**herapist.

PAC **P**ressure **A**rea **C**are.

Palliative relieving or soothing the symptoms of a disease or disorder with effecting a cure.

PEG **P**ercutaneous **E**ndoscopic **G**astrostomy tube; tube that is inserted into the stomach to give nutrition.

PICC **P**eripherally **I**nserted **C**entral **C**atheter.

PRN as required medication; these are not part of the patients regular medications).

QID four times a day.

RN **R**egistered **N**urse. a graduate nurse who has been legally authorized (registered) to practice after examination by a state board of nurse examiners or similar regulatory authority, and who is legally entitled to use the designation RN..

Rx treatment pertaining to medication / subscriptions.

S strict precaution (Infection Risk).

SC **S**hower **C**omode (in chair).

SC Fluids **S**ub**c**utaneous Fluids; fluids administered just under the skin and not into a vein.

SH shower.

SP sponge bath in bed.

SPC **S**upra **P**ubic **C**atheter.

ST shower with trolley.

TB **T**owel **B**ath.

TDS three times a day.

TEDS brand of Anti-embolic Stockings that are used to prevent blood clots.

TKVO **T**o **K**eep **V**ein **O**pen.

TL **T**eam **L**eader.

TPN **T**otal **P**arenteral **N**utrition; all nutrition is given through a catheter.

Trainee Consultant/Registrar doctor learning his or her speciality.

U **U**rine **OR** MRO Risk (Unknown Status) mean a risk assumption has been made but not proven.

VTE **V**enous **T**hrombo**e**mbolism; i.e. blood clot in the vein.

Warfarin anticoagulant medicine; nurses need to be aware of patients receiving this due to higher risk of bleeding and in case of bleeds.

1. Introduction

1.1. Client Profile

Originally opened in 1903 as a 70 bed Sanitarium, the Sydney Adventist Hospital (SAH), known to the local residents as 'The San', is a not-for-profit hospital of the South Pacific Division of the Seventh-day Adventist Church. Today, the hospital is a private hospital offering acute care and currently has 358 licensed overnight beds. SAH is the largest single campus private hospital within NSW and was the first of its kid to be accredited by the Australian Council on Healthcare Standards. SAH is proud to have won the Australian Private Hospitals Association Award for Clinical Excellence in the category 70 beds and over in 2006.

The San prides itself on being the single biggest employer within the Hornsby-Kruing-gai area employing over 2,2200 staff and around 700 accredited medical pactitioners. Together, the SAN staff care for more than 50,000 inpatients and about 160,000 outpatients. The San is also known for its maternity wards and is proud to be bringing over 2,000 babies a year into the world. The SAN, being one of few private hospitals to offer emergency care, admits over 20,000 patients annualy making it NSW's largest and busiest emergency care department among private hospitals. The SAN offers medical services ranging from acute surgical, medical and obstetric care to complex cardiac and orthopaedic procedures. The SAN boasts cutting edge facilities that include a dozen operation theatre suites, 3 state-of-the-art Cardiac Catheterisation Laboratories and Australiaś first dual source CT scanner. The SAN is also responsible for operating the San Day Surgery Hornsby and Dalcross Adventist Hospital, located in Killara.

Having the mission statement "Christianity in Action", the SAN not only offers world class care to the patients within the hospital, but also to disadvantaged third world men, women and children as part of its HealthCare Outreach program. Since its inception in 1986, the HealthCare Outreach program has undertaken 100 trips to 13 different countries culminating in over 2,800 surgeries and lives saved.

1.2. Project Description and Scope

1.3. Project Objectives

- Rewrite the current Pay By The Month Service into Java

- Increase resilience, maintainability, extensibility and reporting

- Minimize complexity by using plain Java without application frameworks

1.3.1. Risks

Ref #	Probability	Impact	Description	Mitigation
R.1	Medium	High	Developer overloaded	Increase allotted project time for developer
R.2	Low	High	Communication problems expert in with external systems	Incorporate external system troubleshooting as well as using proof of concepts
R.3	Low	Medium	Unforeseen required feature	Include in current or next iteration. Reveal missed stakeholders

1.3.2. Assumptions

Ref #	Description	Validated By
A.1	External Systems will not change their communications interfaces for the project duration	Adam Reitsma
A.2	Developer, System Test and Production instances will be available for the project	Adam Reitsma
A.3	Testing will be done by developers as well as dedicated testers	Adam Reitsma
A.4	Use of open source third party libraries is allowed	Adam Reitsma
A.5	The bottleneck in terms of performance will be the actual monetary transaction between Suncorp and the bank	Anand Ria

1.3.3. Issues

Ref #	Priority	Description	Owner
I.1	Medium	Late start for project due to waiting for management decisions	Management
I.2	Medium	Legacy system expert is on vacation during iteration 0	Management

1.3.4. Constraints

1.3.5. Exclusions

1.4. Anticipated Outcomes / Results for the Project

1.5. Benefits of the Project

2. Methodology

2.1. Overview

2.2. Tools and Skills

2.3. Literature Review

2.4. Scope and Schedule

3. SANSURGIMS

4. Evaluation

4.1. Testing Procedures

4.2. Interpretation of Results

5. Future Work

6. Reflection

6.1. Contribution

6.2. Difficulties

6.3. Lessons Learned

6.4. Future Suggestions

7. Conclusion

7.1. Concluding Remarks

7.2. Strengths and Weaknesses

7.3. A Second Time

7.4. Future Work

A. Appendix

Include the following:

- Roles at SAN wiki page

- Scans of original questionnaires

- Screenshots of SANSURGIMS (Web and Designer)

- Scans of important forms (Nursing Care Record & Patient History)