

Using Ten Cs in Incident Analysis



Objectives

- Introduce the use of the Ten Cs in incident analysis
- Understand how the Ten Cs allows the analysis to include a Safety Two focus
- Understand how the Ten Cs maps work-as-done
- Visualise the Ten Cs mapping of a complex adaptive system

Ten Cs in Incident Analysis

- Historically only looked at what went wrong, a focus on how and why, but plugging the holes didn't stop similar type incidents
- Being used locally to understand:
 - ✓ What happened?
 - ✓ Why it happened?
 - ✓ What may be done to prevent recurrence?

Ten Cs in Incident Analysis

- The resilient traits are just as descriptive of the patient in the process of providing care as that of the providers of that care or the system as a whole
- It recognises that the patient is an active participant in the process of providing care, not an inert object upon which we perform cares

Safety Two Focus

- Diagramming
 - what went right,
 - what worked,
 - understand how the system adapted and compensated
- Describes successes as well as failures of the system

Safety Two Focus

- Leads to improved recommendations
- Focus on improving resilience in the system rather than developing more policies and procedures, ie plugging the holes in the barriers
- Improving resilience through individuals within the system learning/understanding/ developing resilient traits

Mapping Work as Done

- Reflective of a complex adaptive system
- Shows the messiness of the real world
- Identifies the context and wider contributing factors – this shows a real view of work as done rather than a linear view of work as imagined
- Deeper understanding of “who”, the cultural and human component of the system

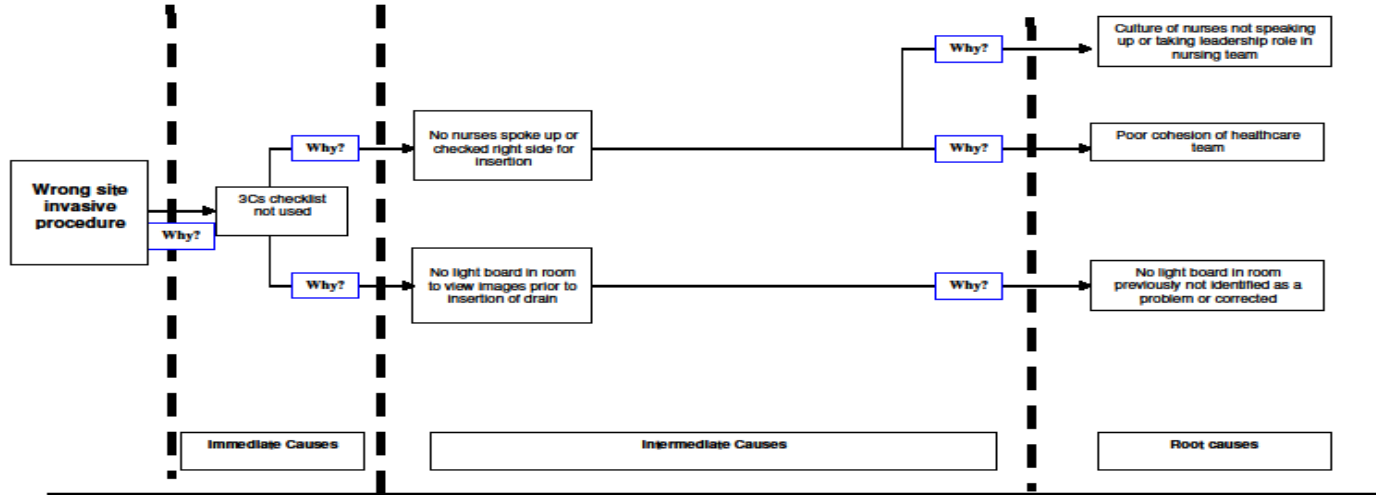
Diagrams

CHAIN OF EVENTS DOCUMENT (2) – Contributing Factors Diagram *s.100 (2) Hospital and Health Boards Act 2011*

PRIME Number:

Version Number:

Tree (RCA US Veterans Affairs):



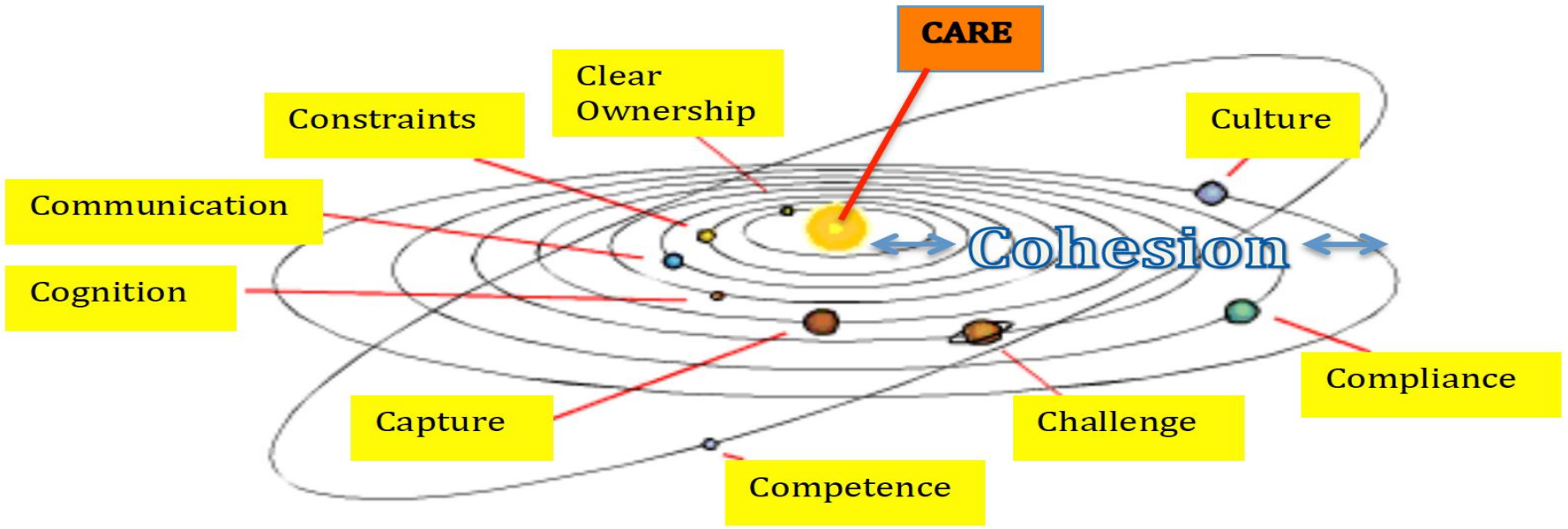
RCA FORM: 3

PRIVILEGED AND CONFIDENTIAL RCA DOCUMENT

DO **NOT** TO FILE IN PATIENT MEDICAL RECORD

© State of Queensland (Queensland Health) 2012
<http://www.health.qld.gov.au/healthcare/>





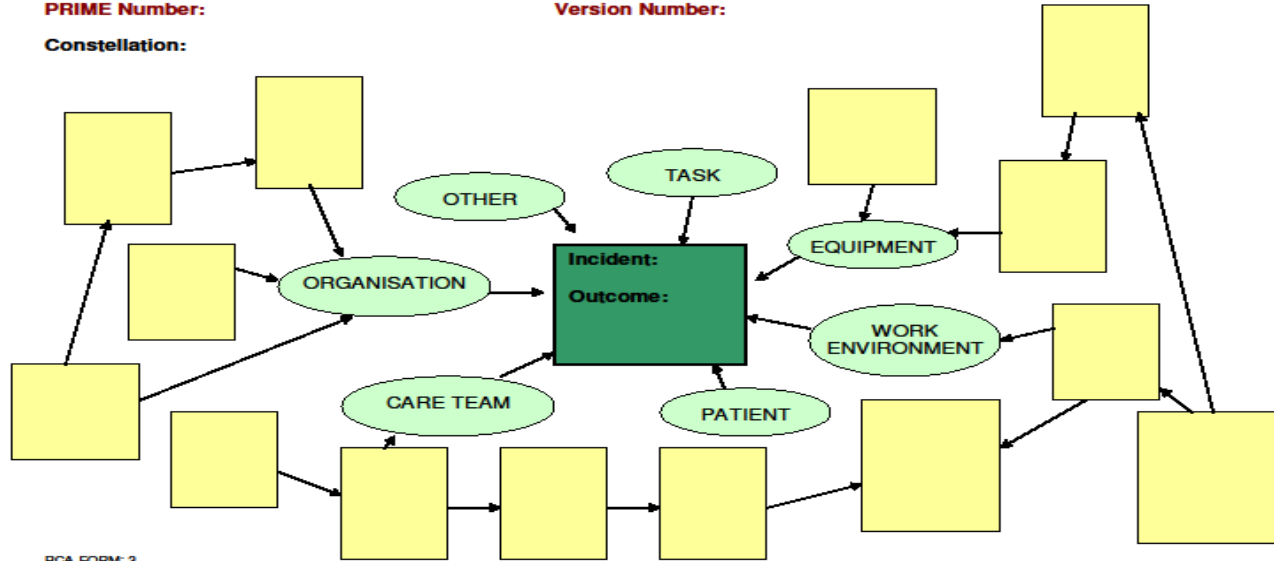
Diagrams

CHAIN OF EVENTS DOCUMENT (2) – Contributing Factors Diagram s.100 (2) Hospital and Health Boards Act 2011

PRIME Number:

Version Number:

Constellation:



RCA FORM: 3

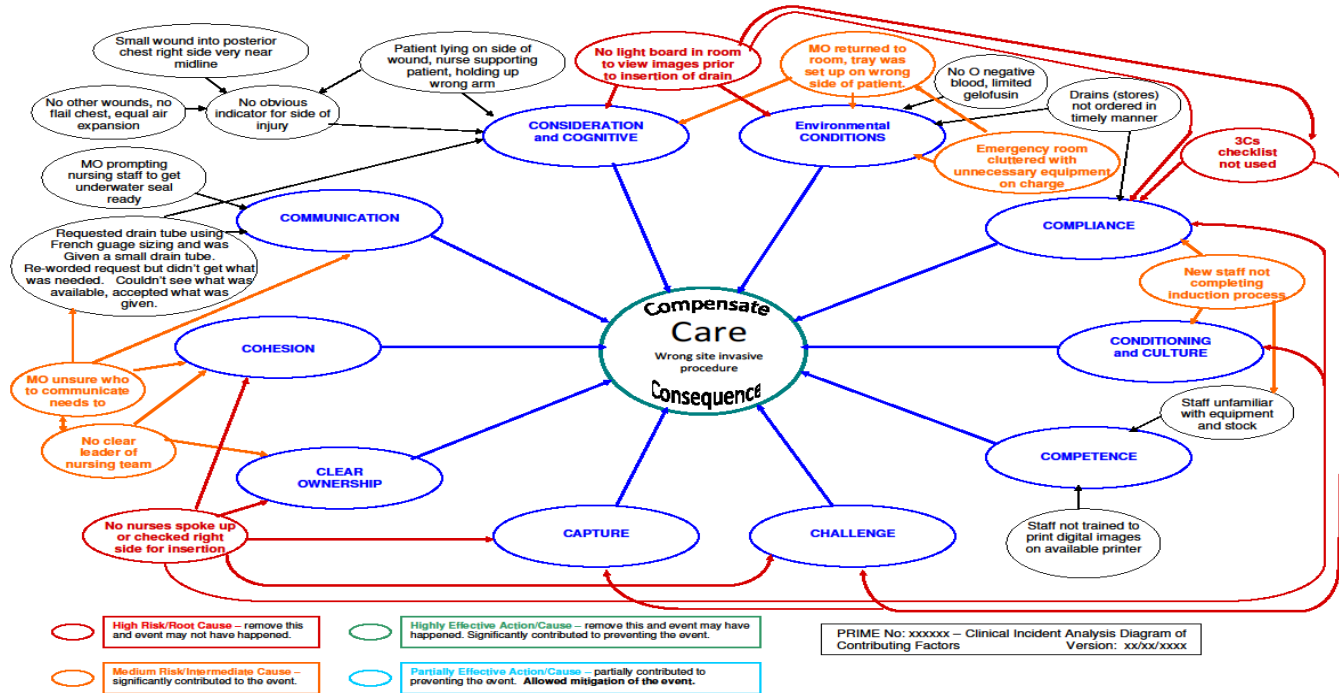
PRIVILEGED AND CONFIDENTIAL RCA DOCUMENT

DO **NOT** TO FILE IN PATIENT MEDICAL RECORD

© State of Queensland (Queensland Health) 2012
<http://creativecommons.org/licenses/by/3.0/au/used.au>



Diagrams



Early Observations

- FRAM reflects a socio-technical system

Erik Hollnagel 2006

- Ten Cs is closely aligned with work developing in Complex Adaptive Systems and Resilient Health Care

Andrew Johnson and Paul Lane 2014



Early Observations

- FRAM focuses on describing what happens in terms of the functions involved, described individually and the relations between them are defined by empirically established functional dependencies

www.functionalresonance.com June 2015



Early Observations

- Ten Cs focuses on describing the inter-relating and inter-dependence of the patient/staff/system while carrying out the functions of providing care

Andrew Johnson and Paul Lane 2014



Early Observations

- FRAM uses terminology familiar to engineers
- Ten Cs uses terminology familiar to healthcare workers
- How long does it take to undertake an analysis using FRAM???
- It can take up to 6 hours to undertake a Ten Cs analysis for a complex incident including background preparation

Where to.....

- Opportunity to analyse incidents using various models to compare findings, recommendations, and time taken
- Anecdotal experience, clinicians quickly grasp the Ten Cs, Complex Adaptive Systems and Edge of Chaos models
- The more familiar a Patient Safety Officer becomes with the model the easier and quicker it becomes to complete an analysis

Questions???

