

# Critical Care Outreach

*Working with Wards to Benefit Patients*



March 28<sup>th</sup> 2012

# Outline

- Critical Care Outreach role & contribution to deteriorating patients
  - ◆ Origins of Critical Care Outreach (CCO)
  - ◆ Critical Care Outreach: NI perspective

# Sub optimal care

(Goldhill 1997, McQuillan *et al* 1998, Goldhill *et al* 1999, McGloin *et al* 1999)

- Demand for ICU / HDU exceeds provision
- Literature suggests monitoring of vital signs in wards sometimes fails to generate effective, timely, intervention for sick patients.

## ■ Common problems

- ◆ Poor understanding of physiological processes
- ◆ Poor recording & interpretation of vital signs
- ◆ Failure to recognise deterioration
- ◆ Failure to escalate

# Review of adult critical care services



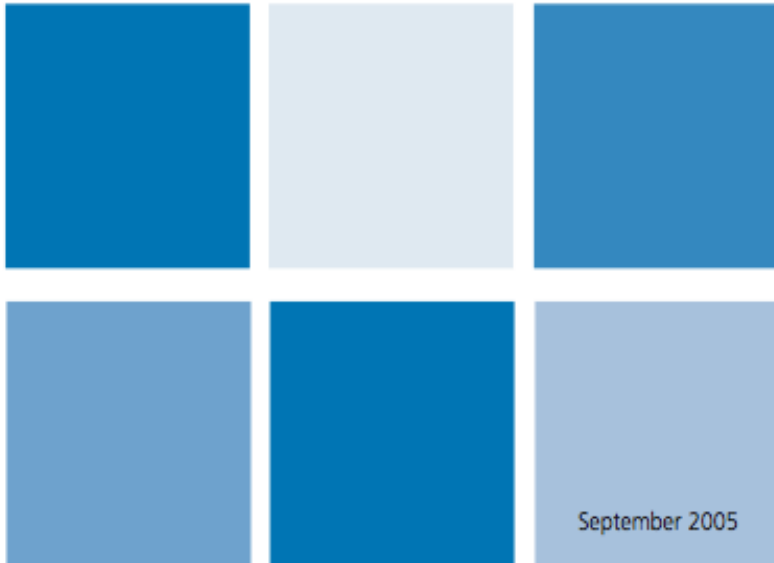
Comprehensive Critical Care (DoH 2000)

- Strategies for reducing sub-optimal care
  - ◆ Identification of patients at risk
  - ◆ Provision of critical care outreach
  - ◆ Education & sharing of critical care skills

# Quality Critical Care

## Beyond 'Comprehensive Critical Care'

A report by the Critical Care Stakeholder Forum



*....outreach services be developed in all acute hospitals 24/7, the service should ensure use of track and trigger warning systems to identify at-risk patients, initiate rapid referral to appropriately equipped experts or the timely transfer to a critical care unit when needed and facilitation of discharge and rehabilitation of patients from critical care along with development of effective arrangements to manage Level 1 patients on general wards*

Paragraphs 50 & 51

# CCO objectives

1. To avert admissions (prevent readmission) to critical care (by early identification of acute illness)
  2. To facilitate discharges from critical care
  3. The sharing of Critical Care skills and knowledge
- ◆ Improving multi-professional communication and collaborative working

# Who are CCO Team

- Personnel with core competencies for acute illness
  - ◆ Critical Care Nurses
  - ◆ Additional physio / medical input

NICE CG50 Acutely ill patients in hospital 2007

# Role of Outreach Team

- Follow up
  - ◆ All critical care discharges
    - ◆ Tracheostomy
    - ◆ Rehabilitation (*Rehabilitation after critical illness* NICE clinical guideline 83)
- Rapid response for deteriorating patients
  - Track & Trigger system
  - Structured assessment & plan
  - Interventions



# Clinical Deterioration

- Varying signs / thresholds
- Possible outcomes
  - ◆ Early treatment & recovery
  - ◆ Early admission to critical care
  - ◆ Delayed admission to critical care
  - ◆ Cardiac arrest

Use addressograph - otherwise write in capitals

HSC Belfast Health and Social Care Trust

Standard Observation Chart

Score key: 1 (Green), 2 (Yellow), 3 (Red)

First name: \_\_\_\_\_ Consultant: \_\_\_\_\_ Ward: \_\_\_\_\_ Hospital no: \_\_\_\_\_ DOB: \_\_\_\_\_

Check identity

Ward: \_\_\_\_\_ Month: \_\_\_\_\_ Year: \_\_\_\_\_

Observation frequency: \_\_\_\_\_

Resp. Rate: \_\_\_\_\_

Temp: \_\_\_\_\_

Pulse (beats/min): \_\_\_\_\_

Blood Pressure: \_\_\_\_\_

Temperature: \_\_\_\_\_

SpO2: \_\_\_\_\_

Urine output: \_\_\_\_\_

Fluid intake: \_\_\_\_\_

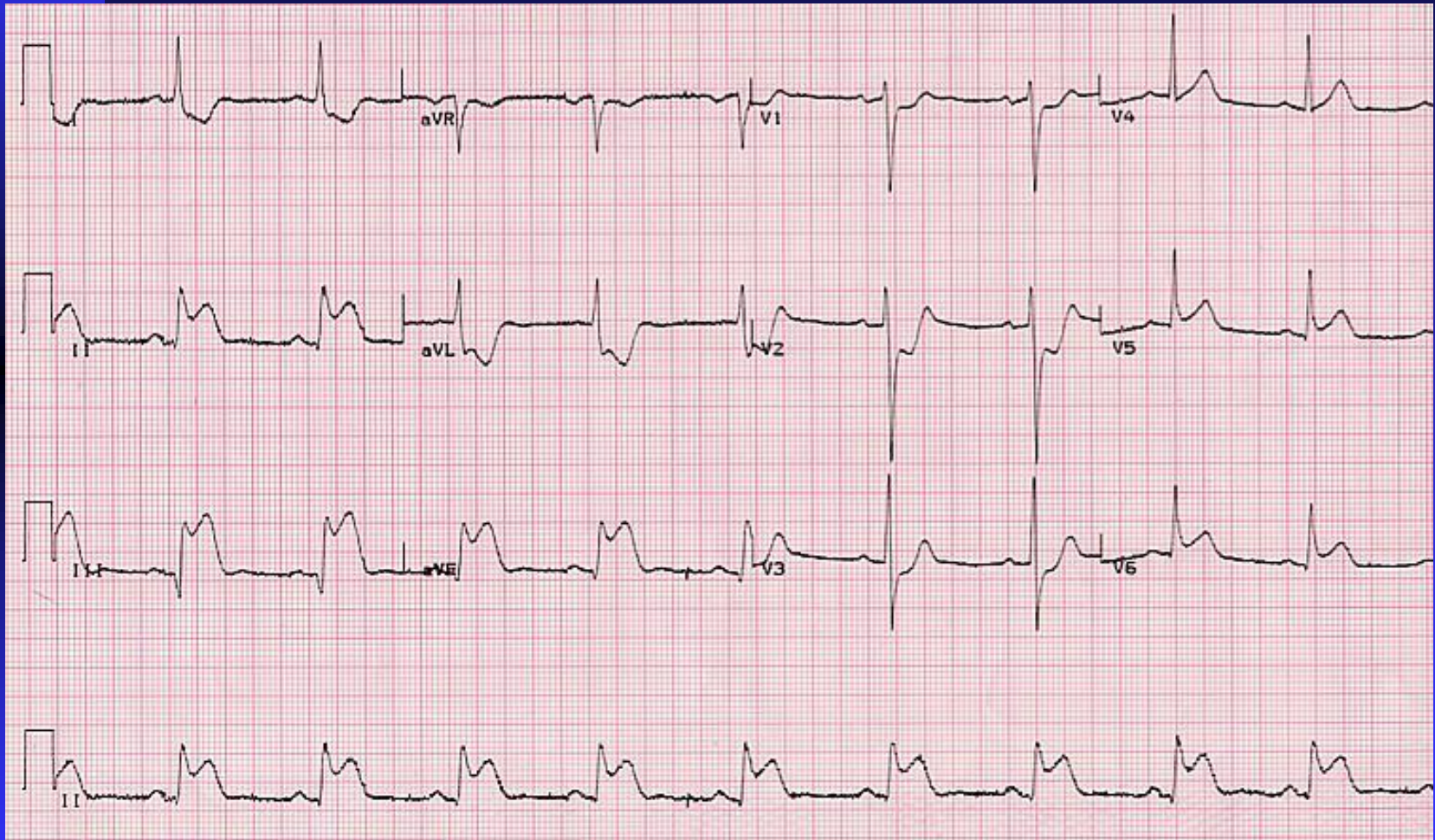
Fluid output: \_\_\_\_\_

Weight: \_\_\_\_\_

Height: \_\_\_\_\_

Notes: \_\_\_\_\_

# Clinical Deterioration







#1  
MEDS

#2  
BRISTO-  
JETS

#3  
CENTRAL  
LINE  
SET-UP

#4  
GLOVES  
BP CUFF

#5  
IVs  
ABG's

SYRINGES  
NEEDLES

DRIP  
SET-UPS

FLASHLIGHT  
GAUZE

BLOOD  
DRAW

SUCTION  
SET-UP

NG  
TUBE  
SET-UP

CHEST  
TUBE  
SET-UP

AIRWAY  
BOX



# Failure to notice vital signs could have led to death of 41 patients

**By Colin Parish**

Forty one patients died in hospitals in England and Wales between September 2007 and February 2008 because staff failed to notice their deteriorating conditions.

National Patient Safety Agency (NPSA) clinical reviewer Frances Healey revealed the figures at an acute care conference in Manchester last week.

Figures appear to have risen. The NPSA had previously analysed deaths in hospitals over 12 months in 2005/06 and found 61 had occurred because of a failure to respond to patients' deterioration.

## Increased reporting

Speaking afterwards she said patients are still dying because their deterioration is going unnoticed, but the rise in the numbers reflects an increase in reporting by trusts, rather than poorer performance.

'Overall the numbers have gone up but if you look at audits carried out by individual trusts the trend is in the right direction,' Ms Healey said.

She said improvements had been made because more trusts are using early warning scores to detect signs that patients' conditions are getting worse and many have set up efficient outreach and resuscitation teams.

## 'When taking observations becomes routine, their importance is forgotten'

— Dame Betty Kershaw

Ms Healey said nurses often miss signs of deterioration because they dismiss a patient's symptoms if they contradict what they expect to find.

She gave an example of a woman with a history of mental health problems who was referred to a psychiatrist when she became agitated on a maternity unit.

'It took the psychiatrist to recognise that the patient had a high temperature, fast pulse and a respiratory rate of 40, and to diagnose a life-threatening sepsis,' Ms Healey said.

A nurse academic told the conference that nursing students are failing to grasp the importance of

monitoring patients' vital signs because patient observations are seen as mundane.

University of Brighton professor of nursing Julie Scholes said many students carried out pulse, temperature, blood pressure and respiratory rate observations while working as healthcare assistants, but had not recognised that observations are a critical part of assessing a patient.

At the same conference, Professor Scholes described the phrase 'doing the obs' as a derogatory term that undermines the significance of what is actually being done. 'If you talk to students about recording physiological parameters to see if the patient is going into shock then the students tune in,' she said.

Professor Scholes said she often reminds nursing students that ignoring vital signs is 'the easiest way to kill a patient'.

Commenting on Professor Scholes' views, RCN acting education adviser Dame Betty Kershaw told *Nursing Standard*: 'When taking observations becomes routine, their importance is forgotten.'

# Where things go wrong...

- Data interpretation
- Failure to escalate
- Hierarchical communication
- Situational awareness

# Why things go wrong...

- Human factors

  - ◆ errors are a fact of life

- The final “product” or service is based on the interaction of;

  - Processes

  - Systems

  - People

  - Culture



# Reliable processes

- Minimise time between start of deterioration and getting effective treatment
  - ◆ By recognising when deterioration starts
  - ◆ By ensuring an appropriate response
- Clear pathways / protocols
  - ◆ Standardisation supports reliability

# CCO: NI Perspective

## 3 services in NI

- Royal Victoria Hospital - March 2007
  - Altnagelvin Hospital - September 2009
  - Ulster Hospital - November 2010
- 
- Commissioner agreement to divert funding from 18<sup>th</sup> critical care bed Royal Victoria Hospital
  - Specific funding from DH for Altnagelvin & Ulster Hospital CCO services

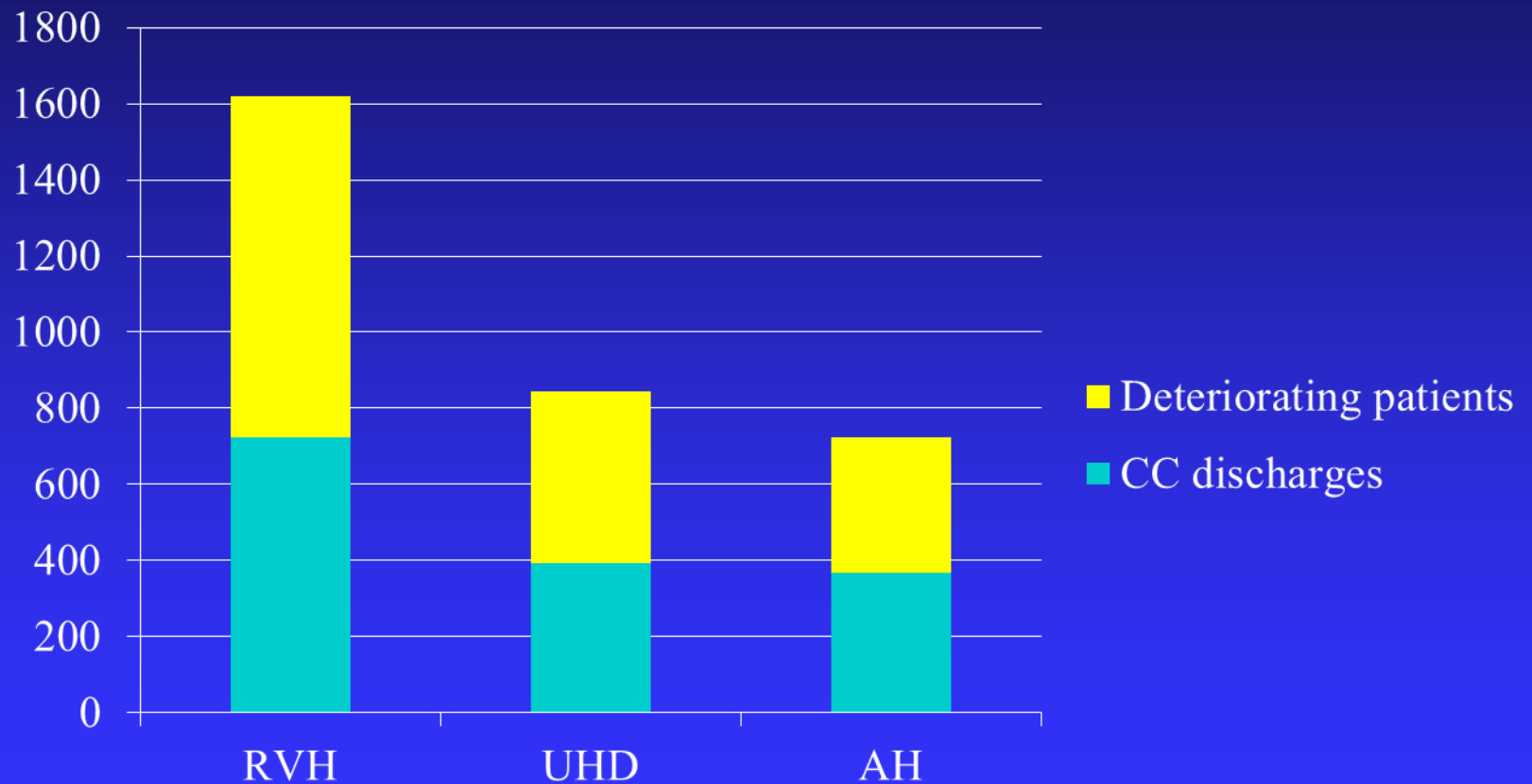




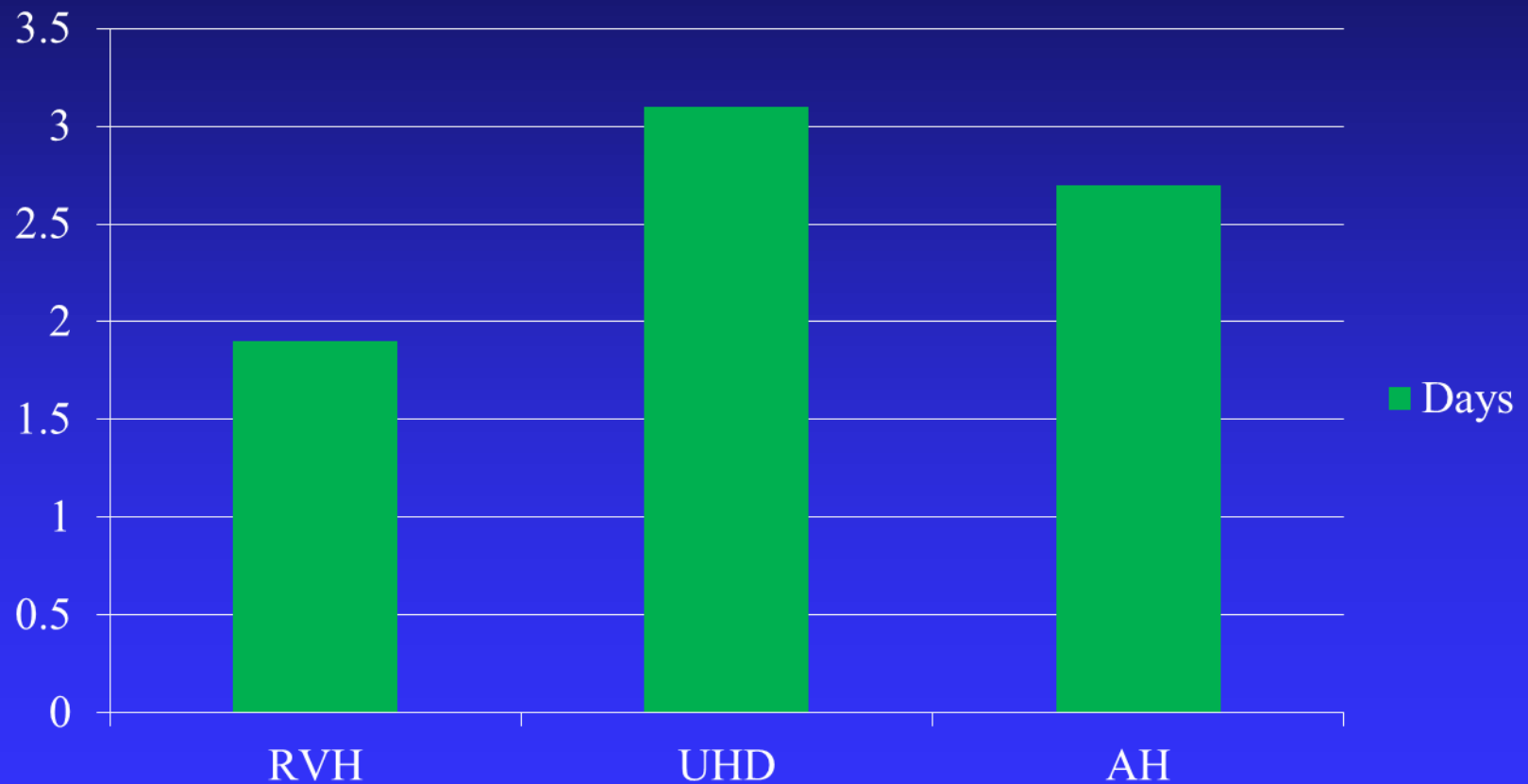
# CCO Service Profile

Altnagelvin Hospital	Royal Victoria Hospital	Ulster Hospital
<b>7/7 08.00 – 16.50</b>	<b>7/7 24 hr service</b>	<b>6/7 not Sunday 08.00 – 20.00</b>
<b>5 wte staff</b>	<b>7 wte staff</b>	<b>3.6 wte staff</b>
<b>Follow up discharges + tracheostomy</b>	<b>Follow up discharges + tracheostomy</b>	<b>Follow up discharges + tracheostomy</b>
<b>Deteriorating patients – concern re deterioration</b>	<b>Deteriorating patients – EWS = 4 or concern</b>	<b>Deteriorating patients EWS = 7 or concern</b>
<b>All wards &amp; depts including maternity but NOT ED</b>	<b>All wards &amp; depts including ED but NOT maternity.</b>	<b>All wards &amp; depts including ED &amp; maternity.</b>

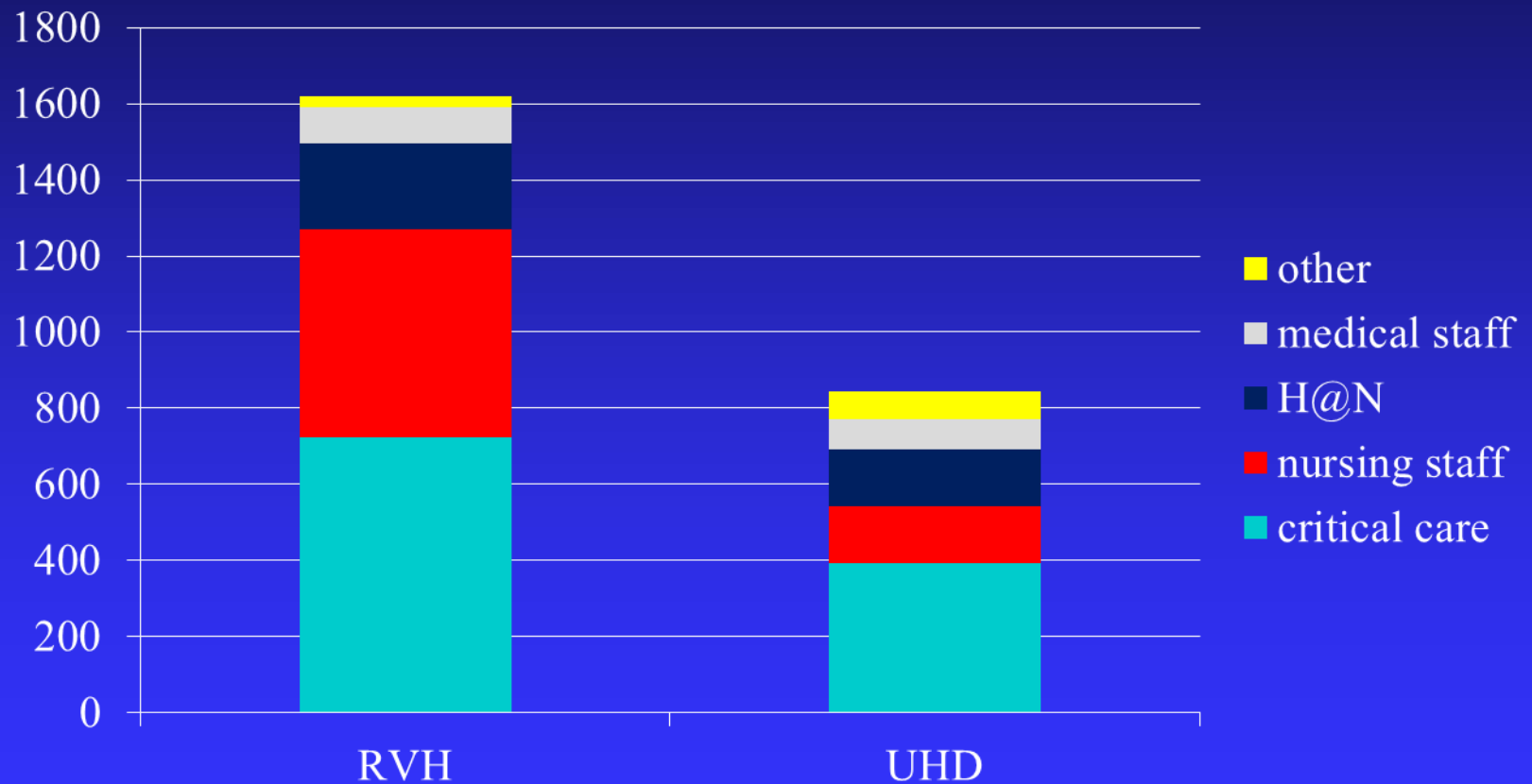
# Activity Data: Jan-Dec 2011



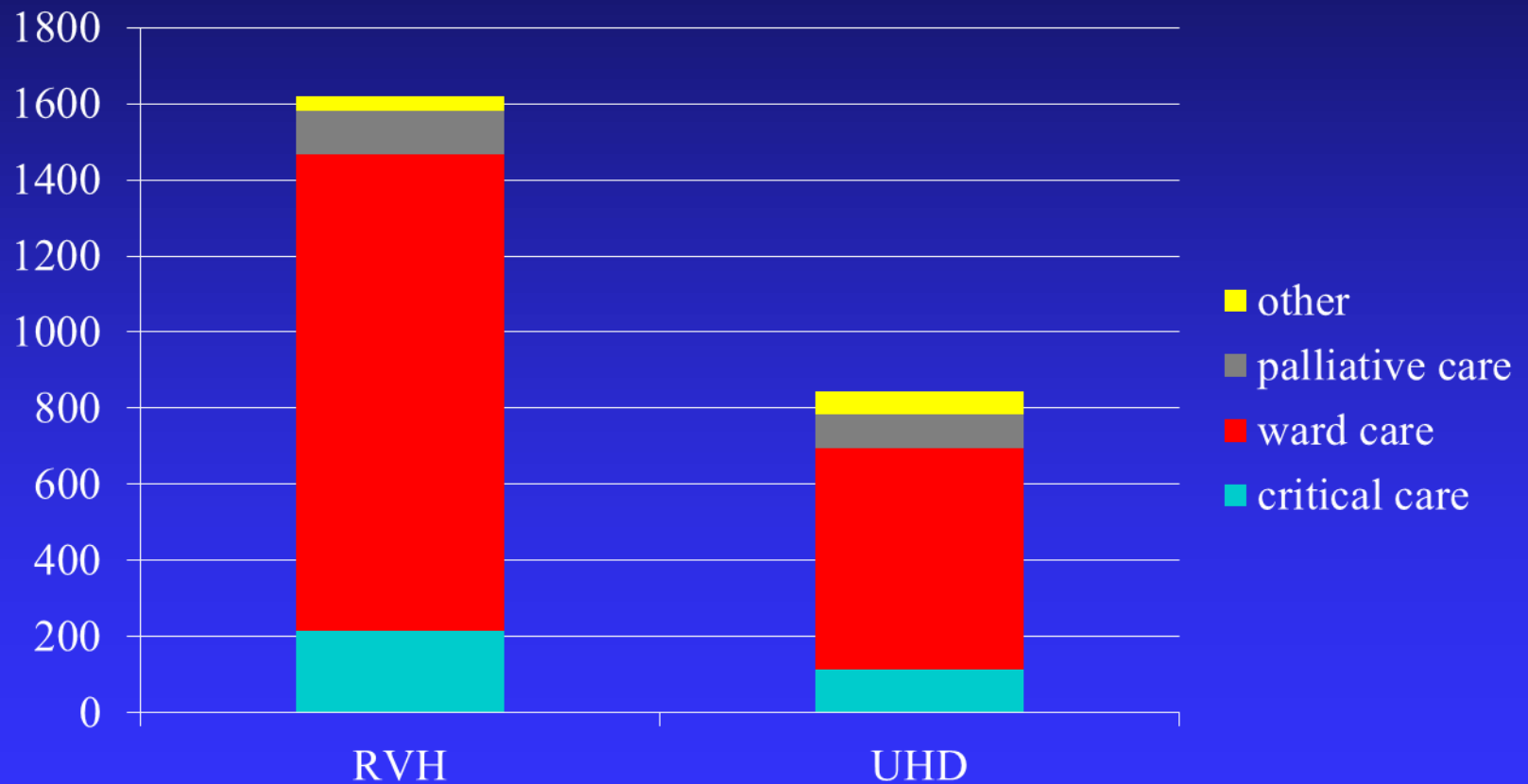
# Average Length of Outreach Care



# Source of Referral



# Patient Outcome after CCO



# Cardiac Arrests pre and post CCOT implementation

	1.2.06 - 31.1.07	1.2.07 – 31.1.08
No. recorded hospital cardiac arrest calls*	110	86
No. recorded cardiac arrest calls in pilot wards	43 (39%)	24 (28%)

*\*Cardiac arrest calls include actual respiratory or cardiac arrests and other events such as respiratory depression and status epilepticus*

**During the 1 year period covered by CCOT Phases 1 and 2, there was a 22% decrease in reported cardiac arrests in the hospital as a whole and a 44% reduction in reported cardiac arrests occurring in the pilot wards.**

# Benefits of CCO

- Deteriorating patients
  - ◆ Timely & effective care
  - ◆ Supported ward management
  - ◆ Prevention of cardiac arrest
  - ◆ Reliable processes
  - ◆ Human factors
  - ◆ Teamwork

# Summary

- We are human and that means we are never 100% perfect, 100% of the time.
- Accept that we all make mistakes or forget things regardless of our experience, technical ability or seniority
- Reliable processes to mitigate against human factors
- CCO role in improving patient safety



# Questions?

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