Scottish Intensive Care Society Audit Group

Lead Audit Consultant Monthly Report
February 2012

This is a confidential report sent out to the nominated Lead Audit Consultant for SICSAG and Lead Nurse(s).
Permission for wider distribution must be given by the Lead Audit Consultant.

Data is collated and analysed on:
1. Hospital outcomes
2. Delayed , Out-of-Hours, and Early Discharges
3. Healthcare Associated Infections

Detailed methodology can be found in Appendix 1.
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Please note: This information has been released for management information purposes only. The data have not been adjusted to protect against potential disclosure risks and may contain information which enables (perhaps with the aid of further knowledge of the topic) an individual patient or member of staff to be identified. Please ensure circulation is restricted and that patient confidentiality is not compromised.

SICSAG data is subject to ongoing validation and must be regarded as dynamic. Therefore if this analysis was to be to re- run at a later stage it may be subject to change.

Intensive Care Unit	February 2012

1. Hospital Outcomes - Track Chart for Case-mix Adjusted Hospital Mortality
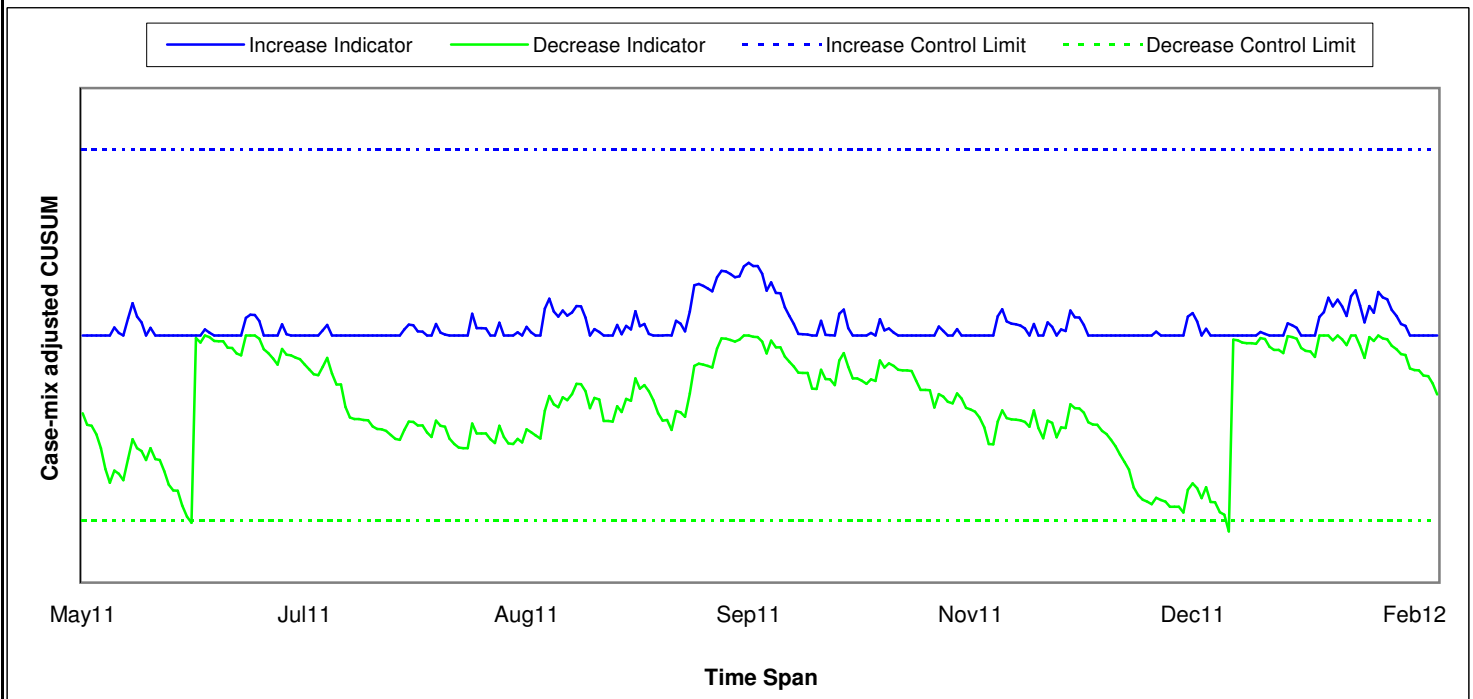
Summary Table for Track Chart

	First date	Last Date	Predicted mortality	Increase control limit	Decrease control limit
ICU	17/5/11	28/2/12	29.9%	46.0%	17.6%

2. Discharge Data

2.1 Delayed discharges within the reported month

Reasons	Number of delayed discharges	Occupied time due to delay		
		Days	Hours	Minutes
ICU bed shortage	0	0	0	0
HDU bed shortage	4	11	14	0
Ward bed shortage	6	13	23	21
Nursing staff shortage	0	0	0	0
Other staff shortage	0	0	0	0
Transport problems	0	0	0	0
Other	0	0	0	0
Total	**10**	**25**	**13**	**21**

2.2 Out of hours (OOH) discharges, by destination, during the last six months (live discharges only).
(Quality Indicator 2.1)

Month	Number of OOH discharges	% of OOH discharges	Discharged to:			
			ICU	HDU	Ward	Other Area
Sep11	5	20.8%	0	2	2	1
Oct11	5	13.9%	1	2	1	0
Nov11	4	10.0%	0	3	1	0
Dec11	7	20.6%	0	4	3	0
Jan12	4	16.7%	0	2	2	0
Feb12	4	13.3%	1	2	1	0
Total	**29**	**15.4%**	**2**	**15**	**10**	**1**
Scotland ICUs	**610**	**13.1%**	**60**	**255**	**269**	**26**

2.3 Early discharges, by destination, during the last six months (live discharges only).
(Quality Indicator 3.2)

Month	Number of early discharges	% of early discharges	Discharged to:			
			ICU	HDU	Ward	Other Area
Sep11	0	0.0%	0	0	0	0
Oct11	0	0.0%	0	0	0	0
Nov11	0	0.0%	0	0	0	0
Dec11	0	0.0%	0	0	0	0
Jan12	0	0.0%	0	0	0	0
Feb12	0	0.0%	0	0	0	0
Total	**0**	**0.0%**	**0**	**0**	**0**	**0**
Scotland ICUs	**141**	**3.0%**	**30**	**87**	**21**	**2**

3. Healthcare Associated Infection (HAI) Data

3.1 Intubation associated pneumonia (IAP)

Number of infected patients	2			
Number of PN-1	0			
Number of PN-2	1			
Number of PN-3	0			
Number of PN-4	1			
Number of PN-5	0			
Total number of infections	2			
Number of intubation days	88			
Infection rate per 1000 intubation days	23			
Number of intubation days since last infection	66			

3.2.1 Catheter related blood stream infections (CRI-3)

Number of infected patients		0		
Number of CRI-3		0		
Number of central line days		96		
Infection rate per 1000 central line days		0		
Number of central line days since last infection		463		

3.2.2 Local and general CVC infections (CRI-1 & CRI-2)

Number of infected patients			0	
Number of CRI-1			0	
Number of CRI-2			0	
Total number of infections			0	
Number of central line days			96	
Infection rate per 1000 central line days			0	
Number of central line days since last infection			2357	

3.3 Blood stream infections (BSI-A & BSI-B)

Number of infected patients				0
Number of BSI-A				0
Number of BSI-B				0
Total number of infections				0
Number of patient days				174
Infection rate per 1000 patient days				0
Number of patient days since last infection				1327

3.4 Infection Rates: Control-chart
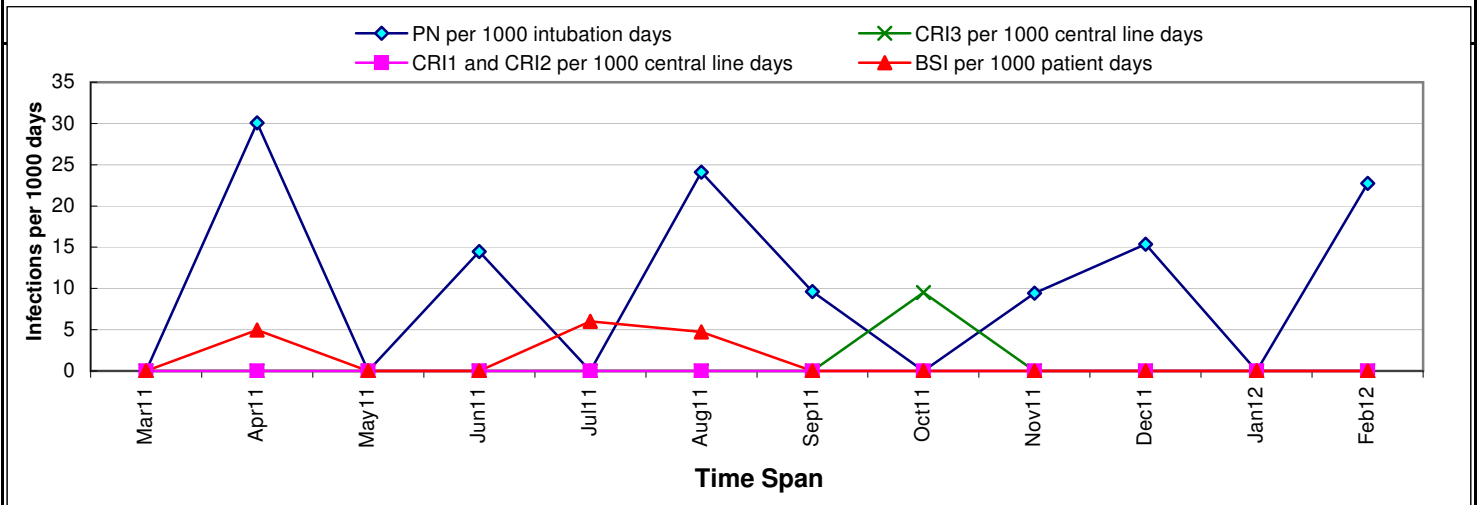
Appendix 1: Methodology

1. Track Chart

The track chart is an early warning system for changing mortality rates based on the 300 most recently discharged patients with APACHE II predictions and documented hospital outcomes.

- When the blue line hits the increase control limit the mortality rate is higher than expected according to the APACHE II predictions.
- When the green line hits the decrease control limit the mortality rate is lower than expected according to the APACHE II predictions.
- Since new information is added every month, the selection of the 300 most recently discharged patients will change, and so will the time span, the predicted mortality and the control limits. Detailed information about the selection is displayed in the Summary table.
- The methodology used in the calculation of the CUSUM has been altered from the January 2010 report onwards. The start points of the Increase and Decrease Indicators are no longer reset to zero, but are continuous from the previous month's report.

2. Discharge Data

Section 2.1
Delayed Discharges

This contains the number of discharges recorded as delayed, within the reported month, and the number of hours beds were occupied due to delayed discharge by:ICU bed shortage, HDU bed shortage, ward bed shortage, nursing staff shortage, other staff shortage, transport problems or other reason.

Section 2.2 (Quality Indicator 2.1)
Out of hours discharges

Out of hours (OOH) discharge is defined as live patients discharged between 8pm and 8am ie 20.01-07.59
This contains the number of live discharges recorded as OOH, for each of the last six months. This is displayed as the number of OOH discharges by destination discharged to, and as a percentage of the total number of live discharges.

Section 2.3 (Quality Indicator 3.2)
Early discharges

In some circumstances transfer may not be in the best interest of the patient but necessary due to pressure on beds or staffing. This is defined as an early discharge.
This contains the number of live discharges recorded as early, by destination discharged to, for each of the last six months.

3. Healthcare Associated Infection

These data include only patients with a unit length of stay greater than or equal to 48hrs as per HELICS definition.

3.1 Intubation Associated Pneumonia (IAP)
(Report is on Intubation Associated Pneumonias only.)
Intubation Associated Pneumonia (IAP) is defined by HELICS as an invasive respiratory device being present (even intermittently) in the 48hrs preceding the onset of infection. This question is now asked on WardWatcher if a pneumonia is suspected.
   Table detailing
   • Number of infected patients in reported month
   • Number of patients with specific definition (PN1 – 5) in reported month
   • Number of infections in reported month
   • Number of intubation days in reported month
   • Infection rate per 1000 intubation days in reported month
   • Number of intubation days since last infection
Non Intubation associated pneumonias will be reported separately

3.2.1 CVC related infection
Report is on catheter related blood stream infections (CRI-3)
   Table detailing
   • Number of infected patients in reported month
   • Number of infections in reported month
   • Number of central line days in reported month
   • Infection rate per 1000 central line days in reported month
   • Number of central line days since last infection

3.2.2 Local and general CVC related infection
Report is on local and general CVC related infections (CRI-1, CRI-2)
   Table detailing
   • Number of infected patients in reported month
   • Number of infected patients with specific definition (CRI-1 and CRI- 2) in reported month
   • Number of infections in reported month
   • Number of central line days in reported month
   • Infection rate per 1000 central line days in reported month
   • Number of central line days since last infection

3.3 Blood stream infection
Report is on blood stream infections (BSI-A, BSI-B)
   Table detailing
   • Number of infected patients in reported month
   • Number of infected patients with specific definition (BSI-A, BSI-B) in reported month
   • Number of infections in reported month
   • Number of patient days in reported month
   • Infection rate per 1000 patient days in reported month
   • Number of patient days since last infection

See   http://helics.univ-lyon1.fr/protocols/icu_protocol.pdf   for more detailed information

3.4 Control chart

The control chart shows infection rates for each of the last 12 months, or since the start of reporting.
   Chart showing
   • Incidence of intubation associated pneumonia per 1000 intubation days
   • Incidence of catheter related blood stream infections per 1000 central line days
   • Incidence of local and general CVC related infections per 1000 central line days
   • Incidence of blood stream infections per 1000 patient days