HAI Quarterly Report

July - September2018

NHS Forth Valley

Infection Prevention

& Control Team

Glossary of abbreviations

Following feedback from stakeholders below is a list of abbreviations used within this report:
HAI - Healthcare Acquired Infection
SAB – *Staphylococcus aureus* bacteraemia
DAB – Device Associated Bacteraemia
CDI – *Clostridium difficile* Infection
LDP – Local Development Plan
NES – National Education for Scotland
IPCT – Infection Prevention & Control Team
HEI – Healthcare Environment Inspectorate
SSI – Surgical Site Infection
SICPs – Standard Infection Control Precautions

Definitions used for *Staph aureus* and device associated bacteraemia and *Clostridium difficile* infection

Staph aureus and device associated bacteraemia

Hospital acquired

- Hospital acquired is defined when a positive blood culture is taken >48 hours after admission ie the sepsis is not associated with the cause of admission. An example would a patient with sepsis associated from an infected peripheral vascular catheter.

Healthcare acquired

- Healthcare acquired is defined when a positive blood culture is taken <48 hours after admission but has in the last three month had healthcare intervention such as previous hospital admission, attending Clinics, GP, dentist etc. Note this does not necessarily mean that the sepsis is associated with the previous healthcare intervention.

Community acquired

- Community acquired is defined when a positive blood culture is taken <48 hours after admission but has had no healthcare intervention in the last three months.

Nursing home acquired

- Nursing home acquired is defined when a positive blood is taken <48 hours after admission and when symptoms associated with sepsis developed at the nursing home

Clostridium difficile infection

Hospital acquired

- Hospital acquired is defined when symptoms develop and confirmed by the laboratory >48 hours after admission which were not associated with the initial cause of admission.

Healthcare acquired

- Healthcare acquired is defined as having symptoms that develop and confirmed by the laboratory prior to or within 48 hours of admission and has in the last three months had healthcare interventions such as previous hospital admission, attending Clinics, GP, dentist etc

Community acquired

- Community acquired is defined as having symptoms that develop and confirmed by the laboratory prior to or within 48 hours of admission but has had no healthcare intervention in the last three months.

Nursing home acquired

- Nursing home acquired is defined as having symptoms that develop and confirmed by the laboratory that developed at the nursing home prior to admission

HAI EXECUTIVE SUMMARY

LDP TARGETS

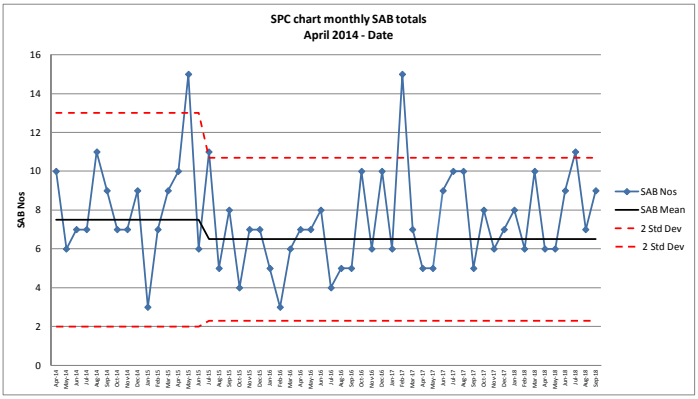
Staphylococcus aureus Bacteraemia (SABs)

Quarterly Total	27
Hospital	7
Healthcare	12
Community	7
Nursing Home	1

Staph aureus bacteraemia total - April 18 to date	**48**

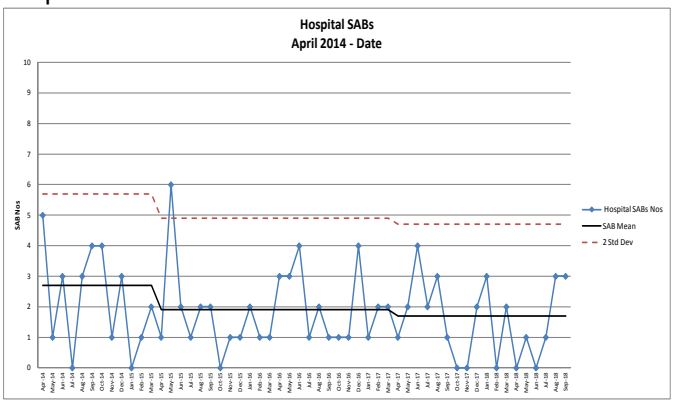
This quarter has seen an increase in SAB cases compared to the previous quarter where 20 cases were identified. Hospital acquired SABs have increase from one case to 7 cases and healthcare acquired SABs have also increased from 7 cases to 12 cases. There has however, been a decrease in community acquired SABs from 12 cases to 7 cases). The graphs below show all categories remain within two standard deviations with the exception of July where total case numbers and community SABs exceeded two standard deviations.

SAB case numbers



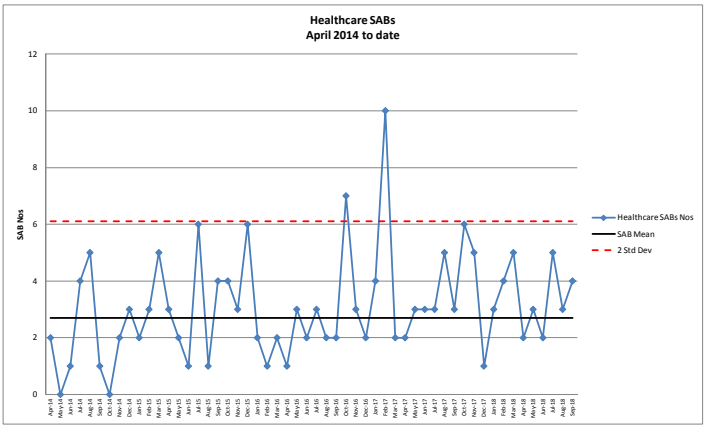
Comments: case numbers remain within control limits, no concerns to raise.

Hospital SABs



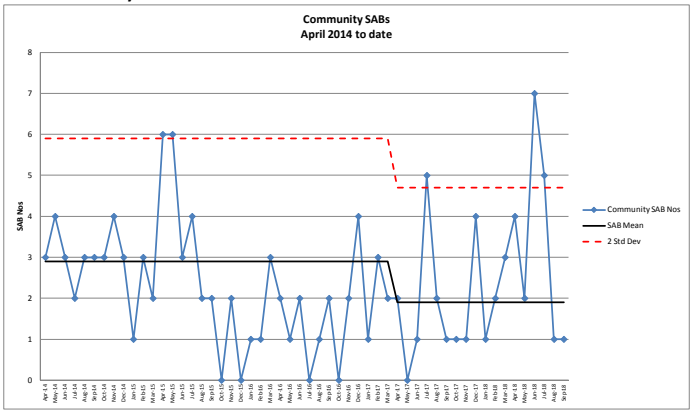
Comments: case numbers remain within control limits, no concerns to raise.

Healthcare SABs



Comments: case numbers remain within control limits, no concerns to raise.

Community SABs



Comments: case numbers remain within control limits, no concerns to raise.

SAB breakdown for this month

Source	No of Cases
Community	**7**
Abscess	1
Osteomyelitis	1
PWID	2
Ulcer	1
Unknown	1
UTI	1
Healthcare	**12**
Abscess	1
Fistula	1
Implantable device	1
Post procedural	1
Ulcer	2
Unknown	2
Urinary Catheter long term	3
Permacath	1
Hospital	**7**
PVC	3
Unknown	2
Urinary Catheter long term	1
Wound	1
Nursing home	**1**
Urinary Catheter long term	1
Grand Total	**27**

Hospital SABs

Of the seven hospital SABs there were three PVC associated infections; compared to the previous quarter there were no SABs attributed to a PVC. As a result of this increase, the IPCT carried out a device audit across all hospital sites in FV; devices assessed included PVCs, longlines (CVCs, Hickman PICC lines etc) and urinary catheters. Analysis of the data identified areas for improvement and was reported to appropriate areas for action.

In addition, as part of the routine ward visits, the IPCT assess three devices for documentation completion ie insertion and maintenance. This is reported in the monthly Directorate reports.

Ward specific graphs can be accessed using the following link:
http://staffnet.fv.scot.nhs.uk/index.php/a-z/infection-control/monthly-ward-reports/

Clostridium difficile **Infections (CDIs)**

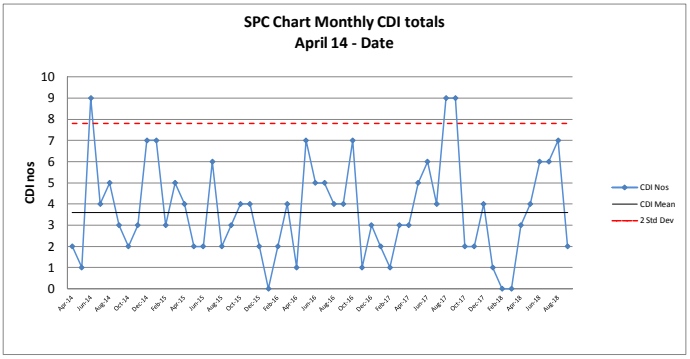
Quarterly Total	**15**
Hospital	3
Healthcare	9
Community	3
Nursing Home	0

Clostridium difficile total – April 17 to date	**28**

This quarter, there was slight increase of CDIs identified compared to the previous quarter where 13 cases were identified. Case numbers remained within control for this quarter and all were attributed to antimicrobial therapy, with the exception of the community acquired CDIs. NHS Forth Valley continues to have the lowest rate in Scotland.

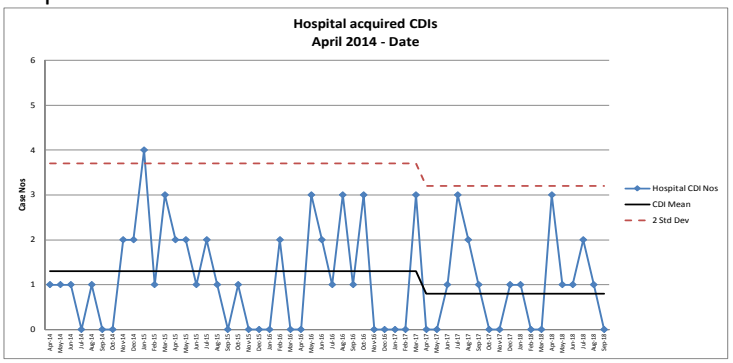
The graphs below breakdown the CDIs by category.

CDI case numbers



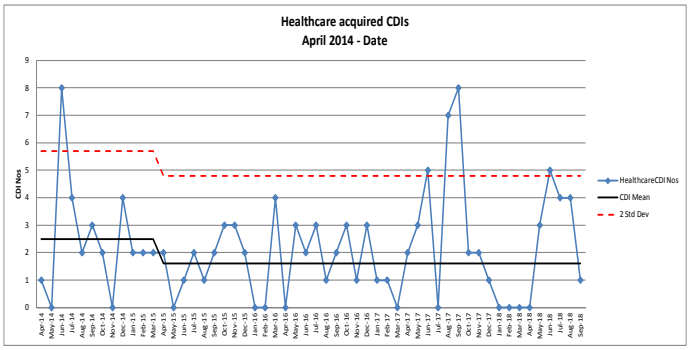
Comments: case numbers remain within control limits, no concerns to raise.

Hospital CDIs



Comments: case numbers remain within control limits, no concerns to raise.

Healthcare CDIs



Comments: case numbers remain within control limits, no concerns to raise.

CDI Breakdown for this Quarter

Row Labels	**Count of Source definition**
Hospital	3
Healthcare	9
Community	3
Grand Total	**15**

Ward specific graphs can be accessed using the following link:
http://staffnet.fv.scot.nhs.uk/index.php/a-z/infection-control/monthly-ward-reports/

Device associated Bacteraemia (DABs)

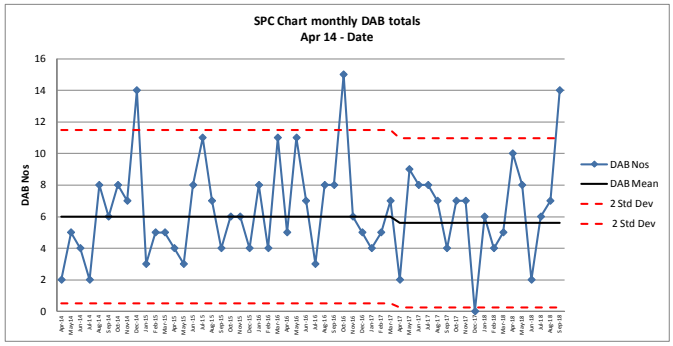
All organisms attributed to a device associated bacteraemia are included in the following data. This surveillance is separate and distinct from our SAB surveillance; however it must be noted that this data will also include *Staph aureus* when associated with a device.

Quarterly Total	**27**
Hospital	7
Healthcare	14
Nursing Home	6

Device associated bacteraemia total - April 18 to date	**47**

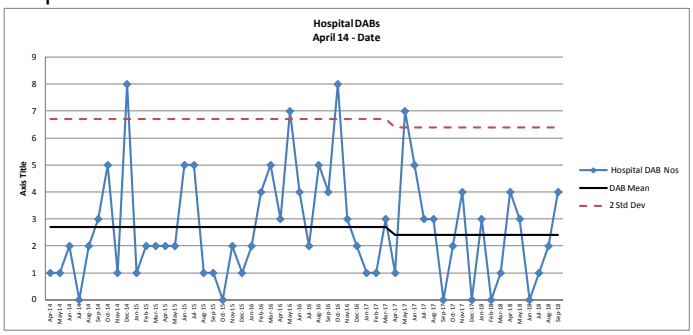
The quarter has seen an increase in DABs compared to the previous quarter of 20 cases. Hospital cases remain consistent compared to the previous quarter, however the increase was attributed to healthcare but particularly nursing home DABs. Long term urinary catheters are the most predominant, however, the Continence Service has implemented the urinary catheter passport which enables the patient and HCW to log any issues and to keep a record of catheter change and general maintenance of the catheter.

DAB case numbers



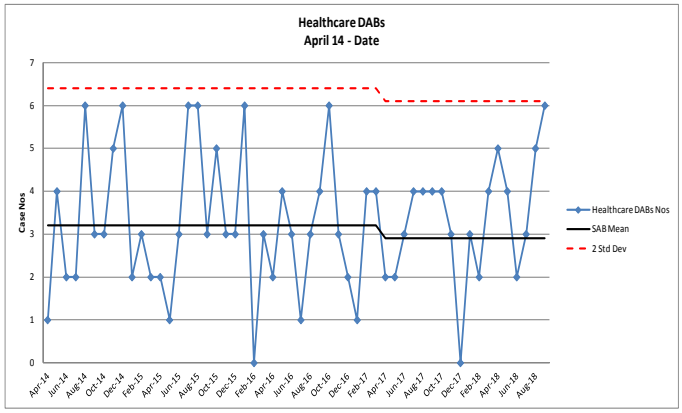
Comments: case numbers exceeded control limits, please see narrative below.

Hospital DABs



Comments: case numbers remain within control limits, no concerns to raise.

Healthcare DABs



Comments: case numbers remain within control limits, no concerns to raise.

DAB Breakdown for this quarter

Source	**No of Cases**
Healthcare	**14**
Hickman	4
Urinary Catheter long term	8
Permacath	2
Hospital	**7**
PVC	3
Urinary Catheter long term	3
Urinary Catheter short term	1
Nursing home	**6**
Urinary Catheter long term	5
Supra Pubic Catheter	1
Grand Total	**27**

Ward specific graphs can be accessed using the following link:
http://staffnet.fv.scot.nhs.uk/index.php/a-z/infection-control/monthly-ward-reports/

Hickman Line related sepsis

As mentioned in previous reports, Hickman line sepsis remains the second most predominant device associated bacteraemia in Forth Valley; the majority of infection occurring in the community on average 60 days post insertion. From November 2015, patients will be offered to use a chlorhexidine body wash on a weekly basis for 10 weeks to lower the bacterial skin flora and potentially infection rates.

Meticillin resistant staphylococcus aureus (MRSA) & *Clostridium difficile* recorded deaths

The National Records of Scotland monitor and report on a variety of deaths recorded on the death certificate. Two organisms are monitored and reported, MRSA and *C. difficile*. Please click on the link below for further information:

https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths

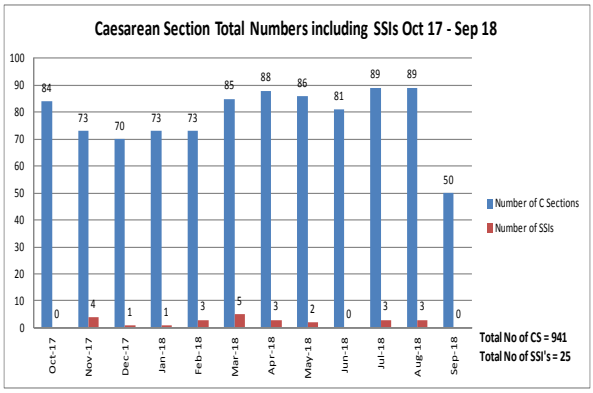
This quarter, there were no deaths where *Clostridium difficile* or MRSA was recorded on the death certificate.

Surgical Site Infection Surveillance

SSI Summary

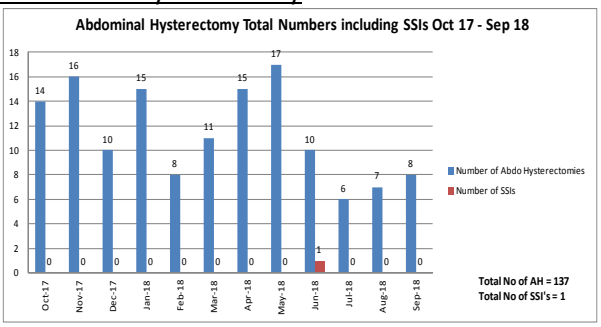
Procedure	Confirmed SSI
Abdominal Hysterectomy (v)	0
Breast Surgery (v)	2
Caesarean Section (m)	6
Knee Arthroplasty (v)	0
Hip Arthroplasty (m)	0
Major Vascular Surgery (m)	0
Large Bowel Surgery (m)	3

Caesarean Section



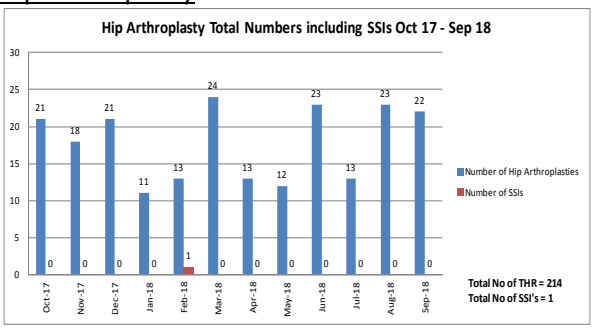
Comments: case numbers remain within control limits, no concerns to raise.

Abdominal Hysterectomy



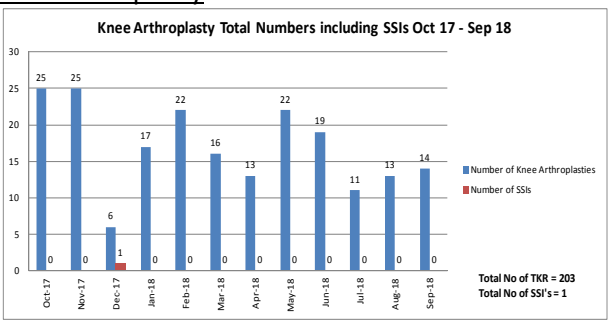
Comments: case numbers remain within control limits, no concerns to raise.

Hip Arthroplasty



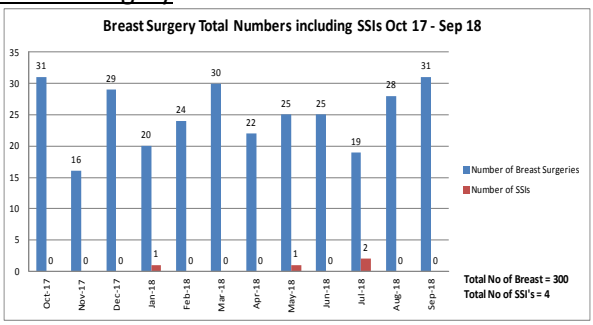
Comments: case numbers remain within control limits, no concerns to raise.

Knee Arthoplasty



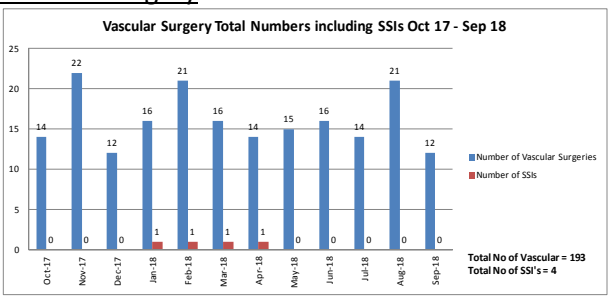
Comments: case numbers remain within control limits, no concerns to raise.

Breast Surgery



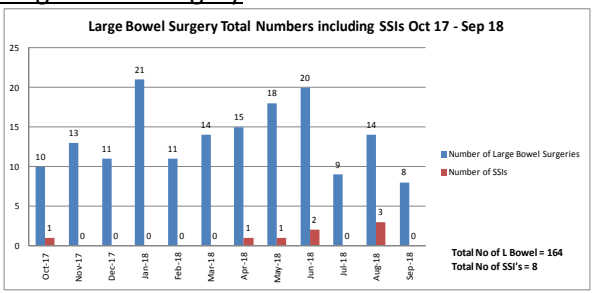
Comments: case numbers remain within control limits, no concerns to raise.

Vascular Surgery



Comments: case numbers remain within control limits, no concerns to raise.

Large Bowel Surgery



Comments: case numbers remain within control limits, no concerns to raise.

Estate and Cleaning Compliance (per hospital)

The data is collected through audit by the Domestic Services team using the Domestic Monitoring National Tool and areas chosen within each hospital is randomly selected by the audit tool. Any issues such as inadequate cleaning is scored appropriately and if the score is less than 80% then a re-audit is scheduled. Estates compliance is assessed whether the environment can be effectively cleaned; this can be a combination of minor non-compliances such as missing screwcaps, damaged sanitary sealant, scratches to woodwork etc. The results of these findings are shared with Serco/Estates for repair. Similar to the cleaning audit, scores below 80% triggers a re-audit.

Forth Valley Royal Hospital

	Oct-Dec 2017	Jan - March 2018	April - June 2018	July - Sept 18
Cleaning	96	96	96	96
Estates	94	96	98	98

Clackmannanshire Community Healthcare Centre

	Oct-Dec 2017	Jan - March 2018	April - June 2018	July - Sept 18
Cleaning	95	94	95	92
Estates	96	95	95	90

Stirling Community Hospital

	Oct-Dec 2017	Jan - March 2018	April - June 2018	July - Sept 18
Cleaning	96	96	93	94
Estates	92	89	91	91

Falkirk Community Hospital

	Oct-Dec 2017	Jan - March 2018	April - June 2018	July - Sept 18
Cleaning	96	95	95	94
Estates	87	88	88	87

Bo'ness Hospital

	Oct-Dec 2017	Jan - March 2018	April - June 2018	July - Sept 18
Cleaning	95	92	92	93
Estates	91	90	90	89

Bellsdyke Hospital

	Oct-Dec 2017	Jan - March 2018	April - June 2018	July - Sept 18
Cleaning	96	96	96	95
Estates	83	83	86	84

< 70%	70% - 90%	> 90%
Non-Compliant	Partial Compliance	Compliant

Incidence/Outbreaks

There have been 4 outbreaks this quarter, Ward 4 (FVRH), Ward 4 (FCH), Ward 3 (FCH) and Strathcarron Hospice. All outbreaks were associated with norovirus.

Hand Hygiene

SPSP Hand Hygiene Monitoring Compliance (%) Board wide

Data taken from TCAB (self reported by ward staff)

	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	June 2018	July 2018	August 2018	Sept 2018
Board Total	99	99	99	99	99	99	99	99	99	99	98	98

Ward Visit Programme

Due to the change of methodology of the ward visit programme in August there is no quarterly data available.

Winter Planning & Influenza

Norovirus

In Forth Valley, norovirus outbreaks are usually limited to the winter months and over the past years very rarely has there been norovirus throughout the summer periods; whether this is an indication of a particularly bad norovirus season it has not been confirmed, however work is underway with the preparations at ward level to ensure disruption due to norovirus is minimal.

Influenza

Last year saw an unprecedented level of influenza across NHS Forth Valley, however it is anticipated, based on the current Australian influenza levels that this year will see a reduced rate of infection. This years influenza immunisation covers the influenza types that are predicted to affect the UK, however, NHS Forth Valley will again be using the near patient testing PCR machine (based in AAU) to rapidly identify Influenza A, B and RSV.