

## Infection Prevention & Control Report to Trust Board

Meeting Date – 4<sup>th</sup> October 2018

### 1. Executive Summary

#### New Reduction Targets

The Department of Health (DoH) for Northern Ireland (NI) has now issued the new healthcare-associated infection (HCAI) reduction targets for 2018/19.

For Meticillin-Resistant *Staphylococcus aureus* (MRSA) bacteraemia, the Trust's target is five cases. That is the same target as was required last year and one case more than the number actually reported in 2017/18 (four).

The Trust's reduction target for *Clostridium difficile* (*C. difficile*) associated disease in 2018/19 is 56; a reduction of eight cases or 12.5% compared to last year.

In response to the O'Neill Review on Antimicrobial Resistance, the United Kingdom has adopted two ambitions in relation to human health, i.e. to improve antibiotic prescribing and to reduce gram-negative bacteraemias (GNBs).

As of 2018/19 the DoH NI has introduced targets for reducing healthcare-associated GNBs, specifically *Escherichia coli*, *Klebsiella species* and *Pseudomonas aeruginosa*. The Western Trust is expected to achieve one fewer case in 2018/19 (49 cases) compared to the baseline figure of 2017/18 (50 cases), which equates to a reduction of 2%.

#### Current MRSA Bacteraemia Performance

Since the beginning of April 2018 six MRSA bacteraemia cases have been reported. All are categorised as community-associated. As such, the reduction target set has been exceeded, with a cumulative increase of 50% compared to last year, and cannot now be achieved.

The two most recent bacteraemia cases are being investigated to ascertain the likelihood of possible contamination of the blood cultures. The MRSAs identified have been typed and further fingerprinting has indicated that the isolates are identical and may suggest person to person transmission. The blood cultures were both taken in the Emergency Department, South West Acute Hospital (SWAH) within four hours of each other and both cases will be investigated by root cause analysis (RCA).

As of 25<sup>th</sup> September 2018, the total number of days since the last Trust hospital-associated MRSA bacteraemia is:

Altnagelvin Hospital – 1119 days	(Last recorded case was in Ward 4)
SWAH – 955 days	(Last recorded case was in Ward 8)
Tyrone County Hospital/ Omagh Hospital & Primary Care Complex – 1344 days	(Last recorded case was in the Rehab Unit)

#### Current *C. difficile* Performance

So far this year 25 cases of *C. difficile* have been reported. 14 of the cases are classified as healthcare-acquired or associated as they occurred more than 72 hours after admission to hospital (definition used by the Public Health Agency [PHA]). However, this is not always an accurate predictor of being healthcare-associated. The remainder (11) are classified as

community-acquired as the patients presented with symptoms within a 72 hour period after admission.

Current GNB Performance

So far this year 23 healthcare-associated cases have been reported. Therefore, the Trust is currently on track to meet the target, with a cumulative reduction of 8%.

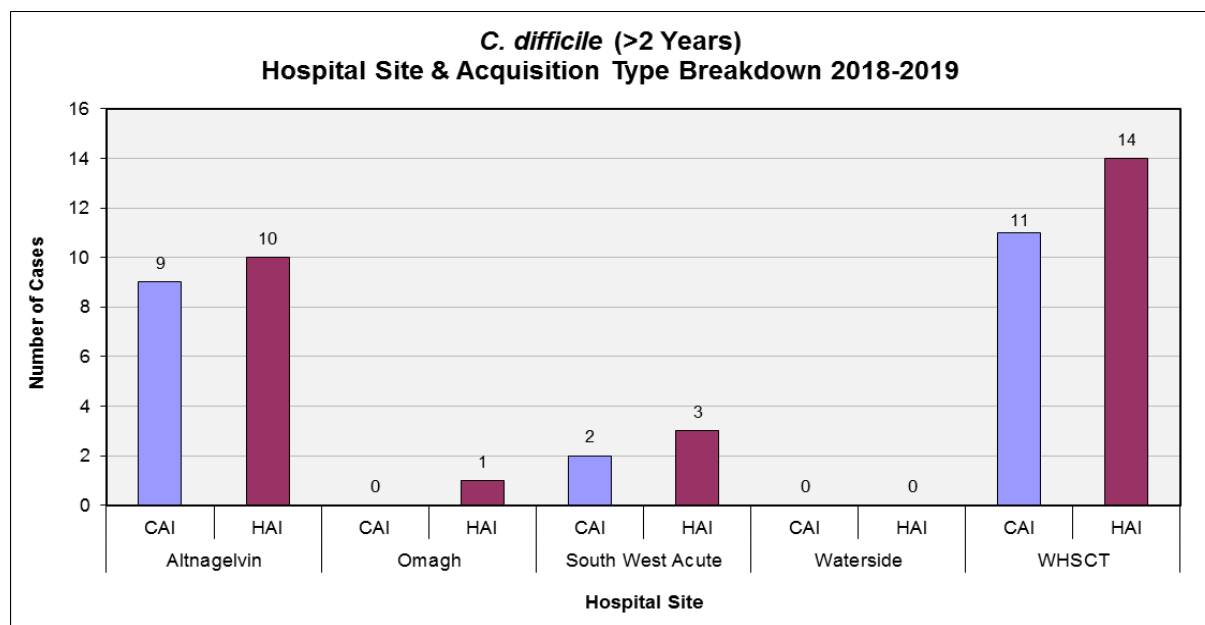
**2. C. difficile Performance**

The 2018/19 target for *C. difficile* ( $\geq$  two years) is 56 cases, which equates to a reduction of 12.5% on the baseline figure of 2017/18 (64 cases).

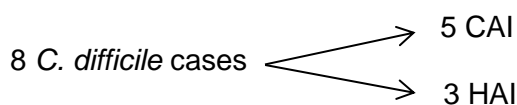
As of 25<sup>th</sup> September 2018, 25 cases have been reported, with 11 of those being categorised as community-associated. Therefore, the Trust is currently on track to achieve the target, with a cumulative decrease of 21.88% compared to 2017/18. This comprises a decrease in healthcare-associated infection cases of 22.22% versus a decrease in community-acquired infection cases of 21.43%. For a period of seven consecutive months prior to September the Trust was below the monthly target value. In September itself performance is above the monthly target value (8 and 4.67 respectively).

A breakdown of the cases by hospital site and acquisition type is given in the chart below.

**Key:**  
CAI Community-associated infection  
HAI Hospital-associated infection



Since the last Report to Trust Board, which contained figures as at 22<sup>nd</sup> August 2018, there have been eight new cases of *C. difficile* (breakdown below).



RCAs are pending for four of these cases.

### C. difficile Care Bundle and Care Pathway Audits

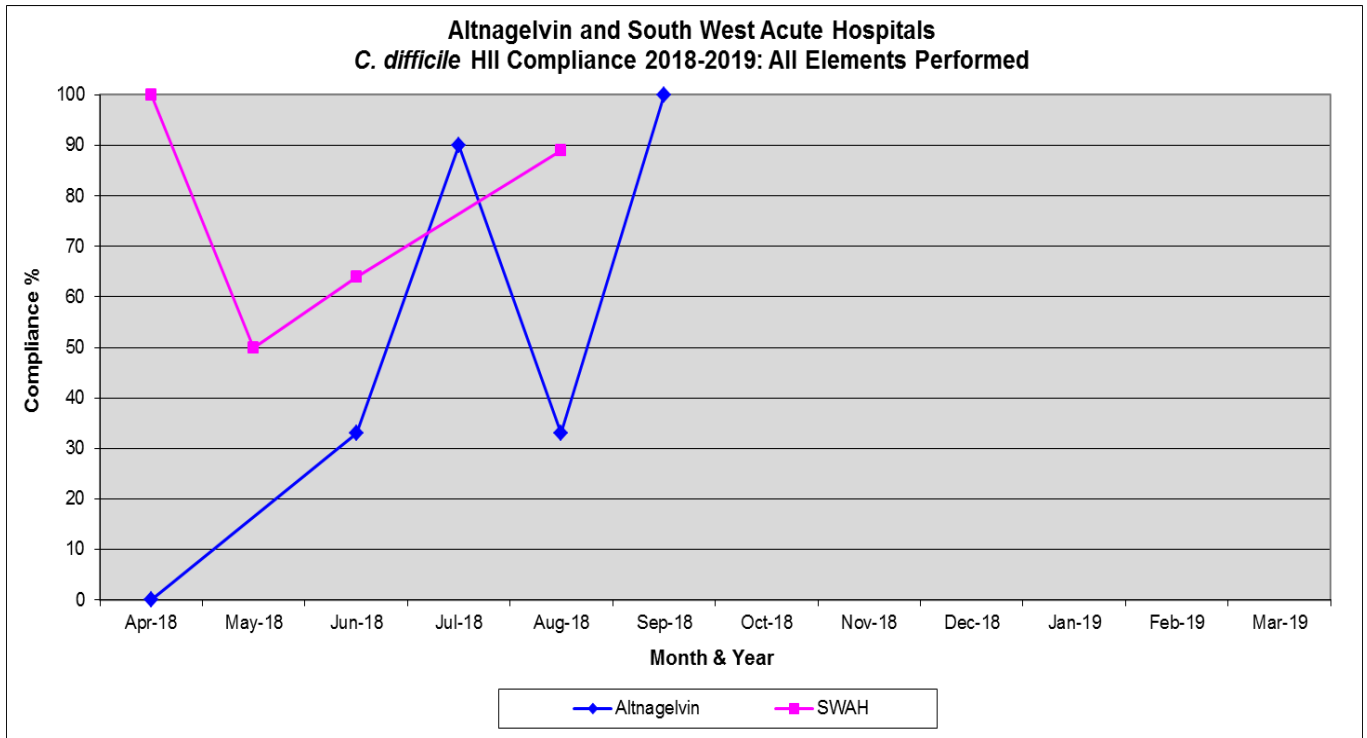
Evidence based care bundles are effective when all elements of care are performed consistently. Therefore, scores are represented as either Pass (100%) or Fail (anything less than 100%). There is no differentiation between those achieving a very low score and those achieving 95%. This is done deliberately to highlight the importance of 100% compliance with the bundle as a whole.

The dashboard below summarises the performance of wards/ departments audited by the Infection Prevention & Control (IP&C) Team since April 2018. On occasion more than one audit may be completed during the month for a particular ward/ department. In such instances an average score is shown on the dashboards. These scores are marked (A).

Consistent compliance with the *C. difficile* care bundle remains a challenge. The findings indicate issues around environmental decontamination, use of personal protective equipment and isolation/ cohort nursing.

		Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18
Ward 1, Alt	Care Bundle			50%	50%		
	Care Pathway						
Ward 3, Alt	Care Bundle			50%			
	Care Pathway						
Ward 20, Alt	Care Bundle					0%	
	Care Pathway					Pass	
Ward 31, Alt	Care Bundle			0%		100%	
	Care Pathway					Pass	
Ward 32 ESU, Alt	Care Bundle	0%				33%	
	Care Pathway	Pass			Fail		
Ward 41 AMU, Alt	Care Bundle				100%		100%
	Care Pathway						
Ward 42, Alt	Care Bundle					0%	
	Care Pathway						
ICU, Alt	Care Bundle				100%		
	Care Pathway						
Ward 1 MSAU, SWAH	Care Bundle			0%			
	Care Pathway			Pass			
Ward 2, SWAH	Care Bundle	100%		80%			
	Care Pathway	Pass		Pass			
Ward 5, SWAH	Care Bundle			100%			
	Care Pathway			Pass			
Ward 6, SWAH	Care Bundle			75%		67%	
	Care Pathway			Fail		Pass	
Ward 7, SWAH	Care Bundle					100%	
	Care Pathway					Pass	
Ward 8, SWAH	Care Bundle					100%	
	Care Pathway					Pass	
Ward 9, SWAH	Care Bundle		50% (A)				
	Care Pathway		Pass x 2				
Rehabilitation Unit, OHPCC	Care Bundle					100%	
	Care Pathway					Pass	
Ward 3, Waterside	Care Bundle	50%					
	Care Pathway	Pass					

The graph below illustrates the overall compliance with all of the elements of the *C. difficile* high impact intervention (HII) care bundle for Altnagelvin and the SWAH.



### 3. *Pseudomonas*

*Pseudomonas aeruginosa* is an opportunistic pathogen or coloniser, well known in the hospital environment. *Pseudomonas* is predominantly an environmental organism and is highly attracted to water sources. *Pseudomonas* is ubiquitous in the alimentary tract of humans and, therefore, carriage is normal and its presence is not indicative of infection. The term 'colonisation' is used to describe the identification of any organism without signs of infection. Specific groups of patients who are immunocompromised are at a higher risk of colonisation or infection than the normal population. The Trust has stringent measures in place regarding the surveillance and management of *Pseudomonas* in augmented care areas and participates in the PHA surveillance as detailed below.

#### *Pseudomonas* Surveillance (Augmented Care\* Areas Only)

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
2015/16	0	0	0	0	0	0	0	0	0	1	0	0	1
2016/17	0	0	0	0	0	0	0	1	1	1	0	0	3
2017/18	0	1	0	0	1	0	0	1	0	0	0	0	3
2018/19	0	0	1	1	0	0 <sup>†</sup>							2 <sup>†</sup>

\* The PHA defines augmented care as NNICU, Adult ICU/ HDU, Renal, Oncology/ Haematology.

<sup>†</sup> These values are subject to change as the report was compiled prior to the end of the month/ year.

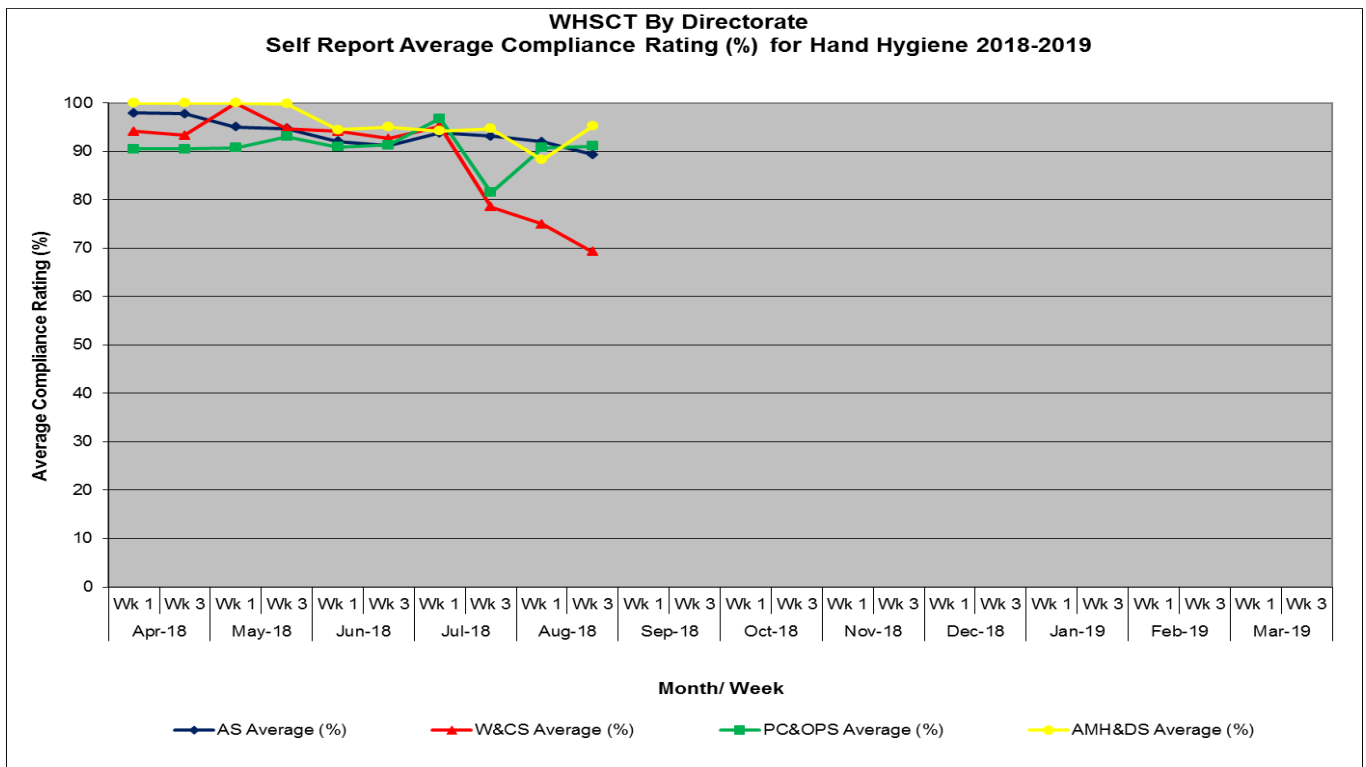
Since the beginning of April 2018 two *Pseudomonas* cases have been reported. Both are categorised as healthcare-associated. There have been no healthcare-associated positive blood cultures in augmented care areas since November 2017.

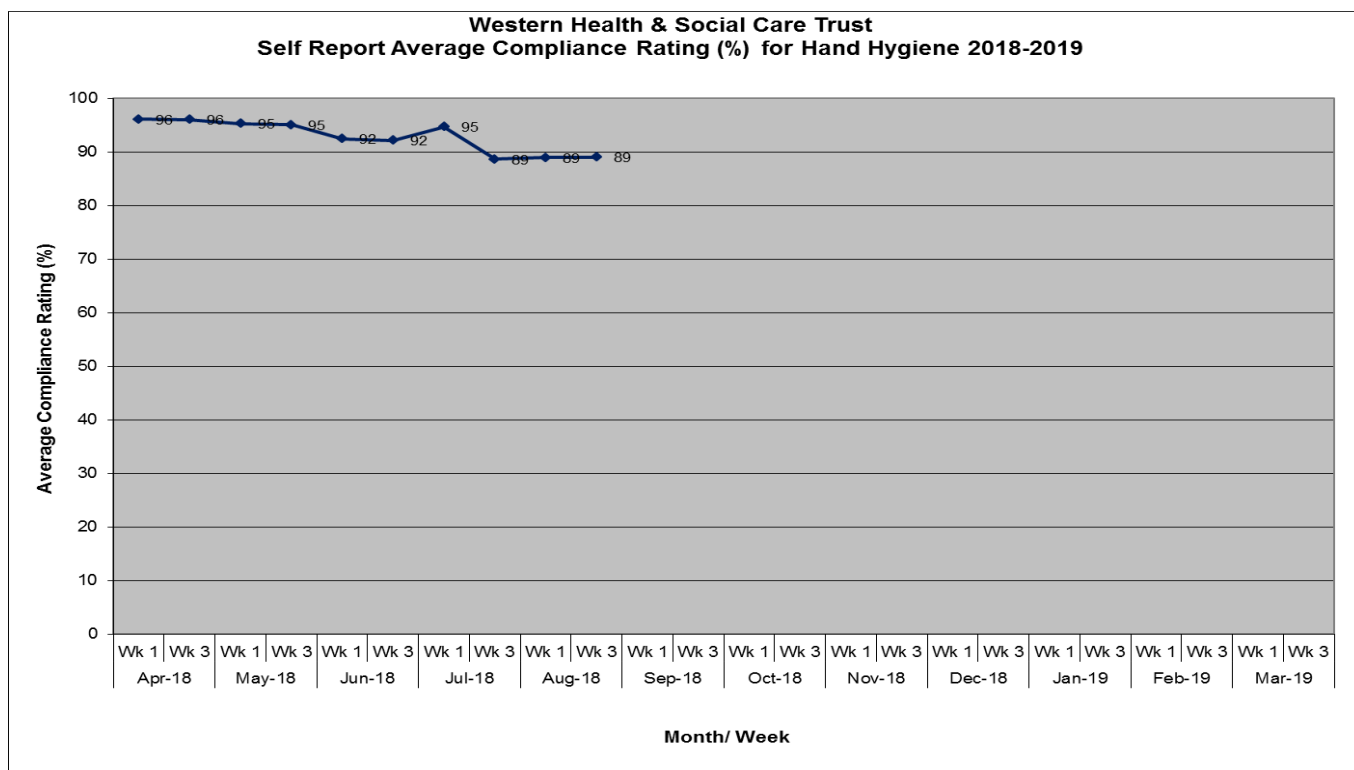
#### 4. Hand Hygiene Compliance

The Trust's overall self-reported hand hygiene scores are 89% when non-submission areas are included. These areas score an automatic 0%. 19 areas out of 194 applicable areas failed to submit scores for August 2018. They are as follows:

Altnagelvin – Ward 21 Rheumatology, Ward 41 AMU, Ward 42, Emergency Department, Oncology Outpatients and GUM Clinic  
 SWAH – Theatre 3 and Outpatients  
 Tyrone & Fermanagh Hospital – Beech  
 Waterside Hospital – Ward 2  
 Lakeview Hospital – Berryburn Centre  
 Residential Homes – Thackeray Place Residential Home  
 Treatment Rooms – Omagh Health Centre  
 Day Care – Tempo Road Day Centre  
 Other Community – The Cottages Children's Respite, Avalon House, Crannog Intensive Treatment Team, Omagh Rapid Response Team and Fintona District Nursing

Ward 21 Rheumatology, Emergency Department, Oncology Outpatients, GUM Clinic, SWAH Outpatients, Ward 2, Berryburn Centre and Thackeray Place Residential Home also did not submit scores for the previous month.





However, when adjusted for non-submission areas, the Trust’s overall self-reported hand hygiene scores improve to 100%.

The hand hygiene dashboard has been circulated to Directors for action through their governance arrangements.

It is important to note that scores from independent audits conducted by the IP&C Team and Lead Nurses tend to be lower than self-reported scores.

## **5. Antimicrobial Management Team**

The Antimicrobial Management Team (AMT) met on 5<sup>th</sup> September 2018. The following items were discussed:

- **Antibiotic Review Kit (ARK)** – A study being carried out in conjunction with Oxford Hospitals. It aims to increase the review and revision of antibiotics within 72 hours and reduce antimicrobial consumption on medical wards.
- **HI-Surv** – This is a web-based dashboard for antimicrobial usage broken down to ward level. It can be made available to appropriate people within the Trust. AMT members and Mortality & Morbidity (M&M) Leads are to be given access. The Antimicrobial Pharmacists are to attend M&M meetings to give an overview of the dashboard.

## **6. New and Updated Infection Prevention & Control Guidance**

The following guidance was approved by the Chief Executive HCAI Accountability Forum in September 2018. It was an update of an existing document.

- Guidelines for the Management of Patients who are Colonised/ Infected with Extended Spectrum Beta Lactamase (ESBL) Producing Organisms