

Northern Care Alliance

PAT Healthcare Acquired Infection Report

For
Pennine Acute Joint Health & Overview Scrutiny
Committee

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PENNINE ACUTE TRUST HEALTHCARE ACQUIRED INFECTION (HCAI) REPORT.

1ST APRIL-31ST AUGUST 2019

EXECUTIVE SUMMARY

- 1.1 The externally set objective for reduction for *Clostridium difficile* infections (CDI) cases across Pennine Acute Trust (PAT) for 2019/20 is no more than 103 reportable cases
- 1.2 The CDI attribution process has changed and cases will be assigned to the acute trust if Healthcare Onset Healthcare Associated (HOHA) and Community Onset Healthcare Associated (COHA).
- 1.3 The externally set objective for MRSA bacteraemia remains as a zero tolerance objective.
- 1.4 In addition to external infection objectives the Trust continues to support the reduction of other alert organisms with internal improvement and reduction objectives for MSSA, E.coli, CPE, and VRE.
- 1.5 To date there have been 53 cases of CDI, 30 HOHA and 23 COHA. To date 37 of these cases have been reviewed by the MDT RCA panel and 6 of these cases have been deemed avoidable, with learning identified.
- 1.6 To date there have been 0 cases of MRSA Bacteraemia.
- 1.7 QI methodology is used to identify improvements required, perform tests of change and implement successful initiatives

2.0 CHANGES TO CLOSTRIDIUM DIFFICILE ATTRIBUTION

CDI remains an unpleasant, and potentially severe or even fatal infection that occurs mainly in elderly and other vulnerable patient groups, especially those who have been exposed to antibiotic treatment. Although nationally we have made great strides in reducing the number of CDIs the rate of improvement has slowed over recent years, and some infections are a consequence of factors outside the control of the NHS organisation that detected the infection. Further improvement on the current position requires a greater understanding of individual causes across the healthcare system to ensure all potential learning is identified and avoid a culture of apportioning blame through the lapses in care process.

2.1 KEY CHANGES FOR 2019/2020

CDI ATTRIBUTION

From April 2019 cases reported to the HCAI data capture system (DCS) will be assigned by DCS as follows:

- a) **HOHA** - Healthcare onset healthcare associated: cases detected in the hospital ≥ 2 days after admission
- b) **COHA** - Community onset healthcare associated: cases that occur in the community (or within 2 days of admission) when the patient has been an inpatient in the trust reporting the case in the previous 4 weeks

- c) **COIA** - Community onset indeterminate association: cases that occur in the community (or within 2 days of admission) when the patient has been an inpatient in the trust reporting the case in the previous 12 weeks but not the most recent four weeks
- d) **COCA** - Community onset community associated: cases that occur in the community (or within 2 days of admission) when the patient has not been an inpatient in the trust reporting the case in the previous 12 weeks

HOHA + COHA = TOTAL HEALTHCARE ASSOCIATED

COIA + COCA = TOTAL COMMUNITY ASSOCIATED

Objectives for each CCG and NHS acute provider have been set using extrapolated data from 1 April - 31 December 2018, using the new case assignment definitions (please see below for case and rate assignment for each Care Organisation).

ACUTE PROVIDERS

- Acute provider objectives for 2019/20 will be set using categories a) and b) above.
- This will mean a shift in numbers of cases that are trust assigned, as healthcare associated cases will include those with recent (last 4 weeks) hospitalisation.
- Based on PHE data, estimates are that the proportion of healthcare associated cases will increase to around 65% of the total number of cases.

2.2 RCA PROCESS AND ATTRIBUTION PANEL

NHSI continue to encourage organisations across the health and social care system to carry out clinical case reviews for each CDI case to determine whether it was linked to any lapses in care related to the care and treatment of the patients, in or out of the hospital setting and identify any patient safety issues or learning. The co-ordinating commissioner under each commissioning contract will continue to be able to consider the results of these assessments to seek assurance that robust systems are in place to prevent, diagnose and treat CDI infections.

The North East Sector (NES) RCA panel meet monthly to discuss cases of healthcare acquired infection such as CDI and MRSA. Cases are reviewed by the multi-disciplinary team to determine avoidability and any learning identified. Learning is shared via infection prevention and control committees, clinical effectiveness committees and governance boards. 7 minute briefings are used to inform staff of learning themes and these are also discussed as part of ward safety huddles.

From 1st April 2019 the NCA have implemented a standardised RCA tool which allows for identification of organisational control for the management of CDI and opportunities for shared learning. This tool is also encouraged for the use of community associated infections.

3.0 CDI OBJECTIVES

NHSI ACUTE AND CCG CDI CASE AND RATE OBJECTIVE 2019/2020

	CASE OBJECTIVE	RATE OBJECTIVE
PAT	103	27.3
SRFT	39	15.4
BURY CCG	47	24.7
OLDHAM CCG	79	33.6
HMR CCG	59	26.9
SALFORD CCG	65	26.5
MANCHESTER CCG	166	30.5

ADDITIONAL KEY POINTS

- Guidance for testing and reporting CDI cases remains unchanged. Financial sanctions will continue to be applied at the discretion of the commissioner; the key change is shifting the culture from the application of sanctions to learning and improving patient safety.
- A review of financial sanctions and the current lapses in care process will be undertaken ahead of 2020-2021.
- Faecal sampling and CDI testing rates for all providers will be reviewed in the next year. PHE already collects this data on a quarterly basis; providers will need to ensure that the data is accurate

3.1 NORTHERN CARE ALLIANCE INFECTION OBJECTIVES 2019/2020

The aggregate CDI objective for the Royal Oldham, North Manchester and Bury and Rochdale Care Organisations (no more than 103 cases) has been further divided based upon the average of the previous 3 years performance and taking into account the number of additional cases that would have been attributed using the new criteria set by NHSI (see table below). The acuity and specialities of each site has also been taken into consideration when dividing the objective, however it must be noted that it is the aggregate CDI objective that is reported to NHSI.

NORTHERN CARE ALLIANCE HCAI COMBINED EXTERNAL AND INTERNAL INFECTION OBJECTIVES

Whilst CDI objectives are set externally, there are other infections which impact on patient experience and outcome but are not currently included within mandatory objectives. In an effort to drive improvement in these The Northern Care Alliance (NCA) sets internal improvement objectives for all Care Organisations within the alliance. These have been instrumental in helping to focus attention on key infections, target resources, identify and share learning, and drive improvement initiatives and programmes. These reduction targets are based where possible on the previous year's performance, and where possible aim for reductions of between 3 - 6%. It is important to remember that these are internally set reduction targets, and as such do not carry

financial sanctions. However they aim to drive improvement, inform prevention strategies, identify best practice and reduce avoidable harm. The NCA remains committed to a zero tolerance approach to MRSA bacteraemia.

CARE ORGANISATIONS HCAI OBJECTIVES 2019/20

CARE ORGANISATION	CDI	MRSA BSI	MRSA COLONISATION	MSSA BSI	E COLI BSI	CPE	VRE BSI
ROYAL OLDHAM	41	0	37	13	29	6	4
NORTH MANCHESTER	35	0	37	13	26	6	13
FAIRFIELD & ROCHDALE	27	0	27	5	12	6	6

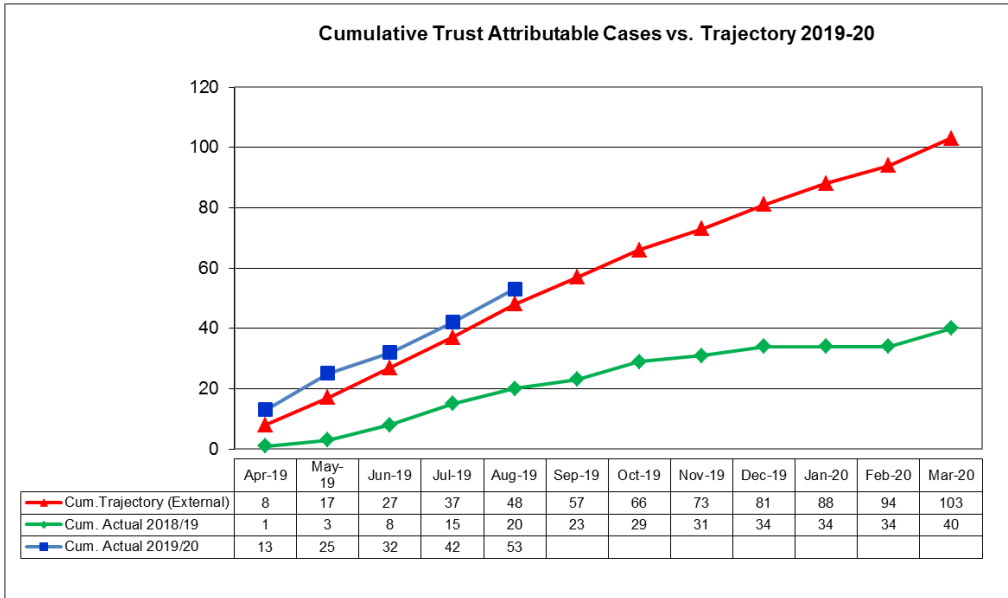
3.2 CARE ORGANISATIONS PERFORMANCE vs OBJECTIVES APR 2019 – 31st AUG 2019

CARE ORGANISATION	CDI	MRSA BSI	MRSA COLONISATION	MSSA BSI	E COLI BSI	CPE	VRE BSI
ROYAL OLDHAM	20/41	0	7/37	5/13	12/29	3/6	2/4
NORTH MANCHESTER	14/35	0	7/37	5/13	12/26	3/6	2/13
FAIRFIELD & ROCHDALE	15/27	0	4/27	1/5	8/12	1/6	0/6

3.3 MONTHLY CARE ORGANISATION CDI (HOHA AND COHA)

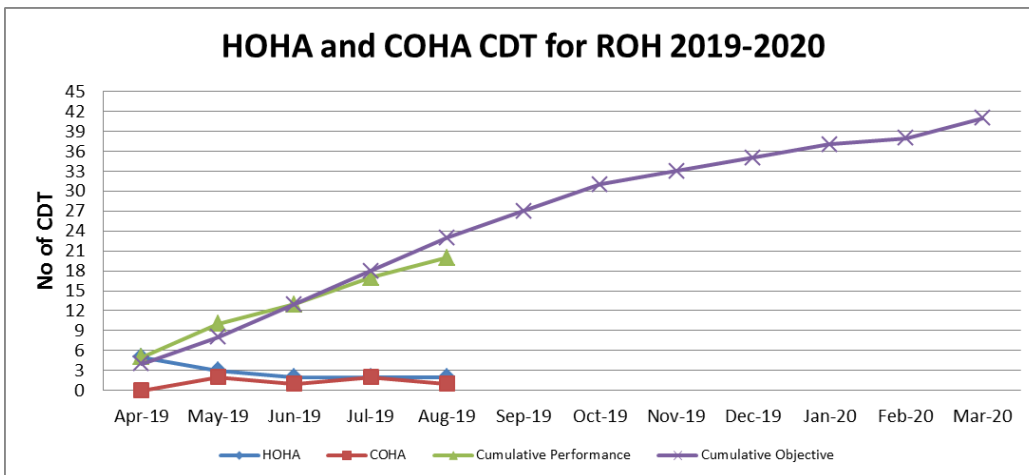
	ROH		NMGH		BARCO	
	HOHA	COHA	HOHA	COHA	HOHA	COHA
Apr-19	5	0	2	4	0	3
May-19	3	2	2	2	1	1
Jun-19	2	1	0	1	2	1
Jul-19	2	2	3	0	1	2
Aug-19	2	1	3	1	2	2
Sep-19						
Oct-19						
Nov-19						
Dec-19						
Jan-20						
Feb-20						
Mar-20						
TOTAL	20		18		15	

PAT OVERALL CDI PERFORMANCE vs OBJECTIVE 2019-2020

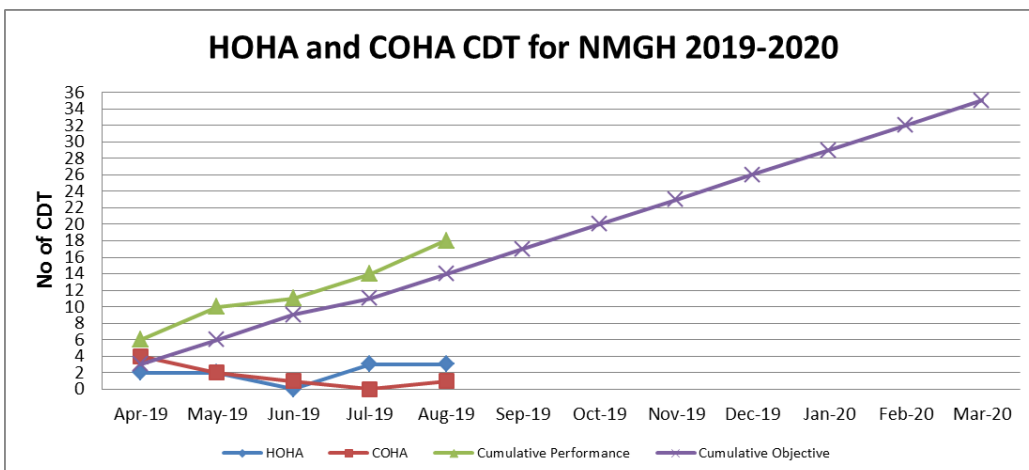


CARE ORGANISATIONS CDI PERFORMANCE vs OBJECTIVE

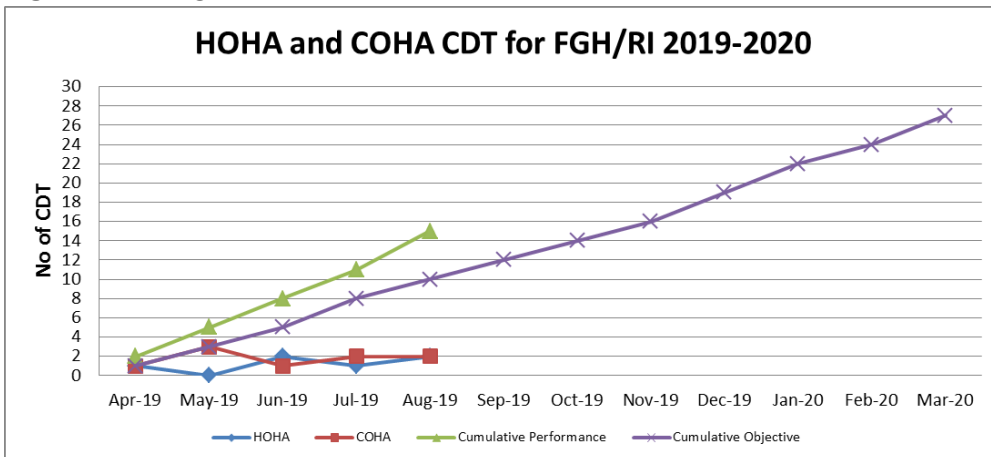
ROYAL OLDHAM



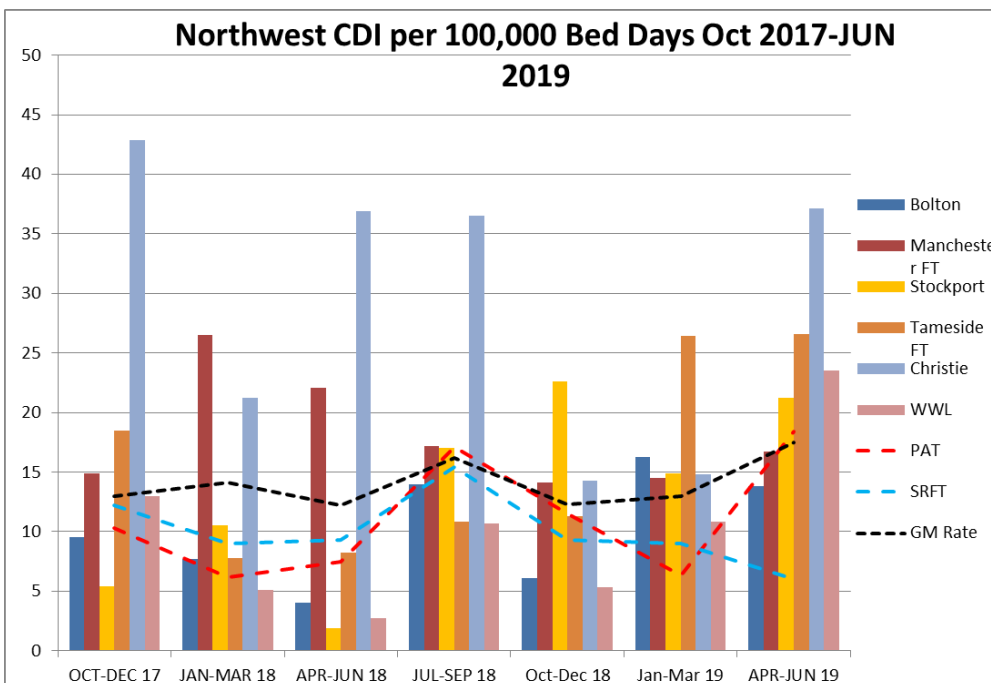
NORTH MANCHESTER



BURY AND ROCHDALE



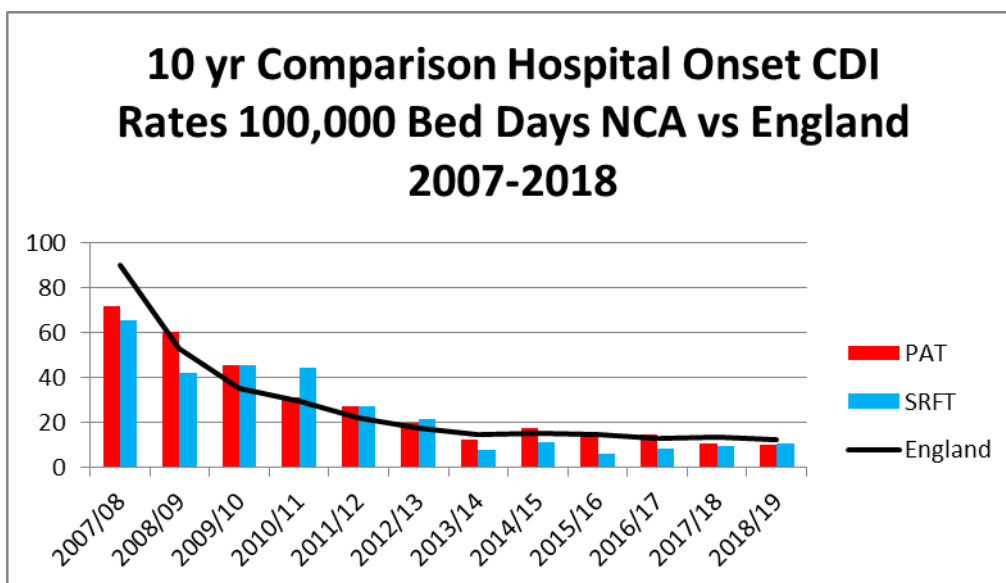
3.4 GRAPH 1. NORTHWEST CDI RATES PER 100,000 BED DAYS



PRIOR CDI PERFORMANCE 2018/19 PHE 2019

Area	Count	Value	95% Lower CI	95% Upper CI
England	4,201	12.2*	-	-
Greater Manchester NHS region	288	13.7*	-	-
The Christie	14	25.2	-	-
Manchester University NHS Foundation Trust	125	18.2	-	-
Stockport	30	13.8	-	-
Tameside Hospital	20	13.7	-	-
Salford Royal	28	10.6	-	-
Pennine Acute Hospitals	40	10.5	-	-
Royal Bolton Hospital	20	9.9	-	-
Wrightington, Wigan and Leigh	11	7.3	-	-

3.5 GRAPH 2. 10 YEAR COMPARISON HOSPITAL ONSET CDI RATE PER 100,000 BED DAYS NCA vs ENGLAND



QUARTERLY RATES OF INFECTION (INCLUDING CDI) PER 100,000 BED DAYS IN COMPARISON TO THE NORTH WEST RATE (PHE REPORT AUGUST 2019)

RATES OF INFECTION PER 100,000 BED DAYS APR-JUN 2019		
ORGANISM	PAT RATE	GM RATE
MRSA Bacteraemia	0.0	0.2
CDI	18.4	17.5
E.coli	14.3	19.0
<i>P.aeruginosa</i>	1.0	2.7
<i>Klebsiella species</i>	11.2	10.6
MSSA Bacteraemia	4.1	8.2

3.6 ORGANISATIONAL ACTIONS TO SUPPORT CDI REDUCTION STRATEGY

- All hospital attributed cases receive a root cause analysis (RCA). The RCA's for each case are completed and discussed at the review panel monthly, and presented at the care organisations Infection Prevention and Control Committee (CO IPCC). The review panel consists of multi-disciplinary members who review each case, identify whether the case was avoidable or unavoidable, and identify lessons learned. Any themes/learning are then shared with clinicians and trust staff through training and educational sessions, link nurse

sessions, ward safety huddles, monthly reports, divisional governance boards and the clinical effectiveness committee. The setting up of a *C. difficile* action group (CDAG) is currently under discussion with the CCG's. It is anticipated that this group will be a combined group with membership across the health economy. It is proposed that this group meets bi-monthly to discuss themes, share patient stories and identify learning for the health economy. Driver diagrams will be used to set objectives and map progress. The CDAG group will be monitored by the Care Organisations Infection Prevention and Control Committees.

- There is a CDI QI Collaborative currently underway on the Royal Oldham site.
- All patients are required to have bowel movements recorded on a Bristol stool chart. The Infection Prevention Team undertake diarrhoea ward rounds, where medical and surgical wards are visited weekly to assess compliance with care pathways for diarrhoea and to support ward teams with assessing patients with diarrhoea for risk of CDI.
- Senior Infection Prevention Nurse spot-checks of standards of cleaning take place on each Care Organisation monthly in partnership with facilities teams.
- Monthly cleaning meetings are held on each Care Organisation.
- During December 2018 cleaning was brought "in house".
- Additional educational drop-in sessions regarding *Clostridium difficile* are provided weekly at all sites for any staff to attend.
- All wards where CDI cases have been identified, have undergone a deep clean and disinfection using hydrogen peroxide vapour where possible.
- Where 2 or more cases have an epidemiological link a Period of Increased Incidence (PII) is instigated and incident meetings are held to ensure that all aspects of CDI management are robust. Ribotyping of the isolates is undertaken and if cross transmission is confirmed the incident is declared as an outbreak.
- Rates of CDI are monitored using SPC charts and these are reviewed monthly at the Care Organisations Infection Prevention and Control Committee (IPCC). Where any increase/clusters of CDI are identified management meetings are led by the Medical Director/Director of Infection Prevention and Control, the Chief Operating Officer/Director of Nursing, and Group Associate Director Infection Control. Clinical engagement at a senior level is required, and learning from RCA's is presented at the monthly IPCC. During this time 7 minute briefings are issued and are communicated on the organisations intranet and shared at each ward daily safety huddle.
- An infection control self – assessment of practice document has been implemented across all care organisations to aid staff to ensure infection prevention strategies are part of the daily ward culture.
- There is currently a patient hand hygiene test of change underway within some of our wards on the Royal Oldham site.

4.0 MRSA

There have been 0 MRSA bacteraemias to date.

The Northern Care Alliance remains committed to the zero tolerance objective for MRSA bacteraemia.

MRSA acquisition (carriage not bacteraemia) remains a focus for reduction objectives as it is recognised that those who are colonised are at increased risk of MRSA bacteraemia.

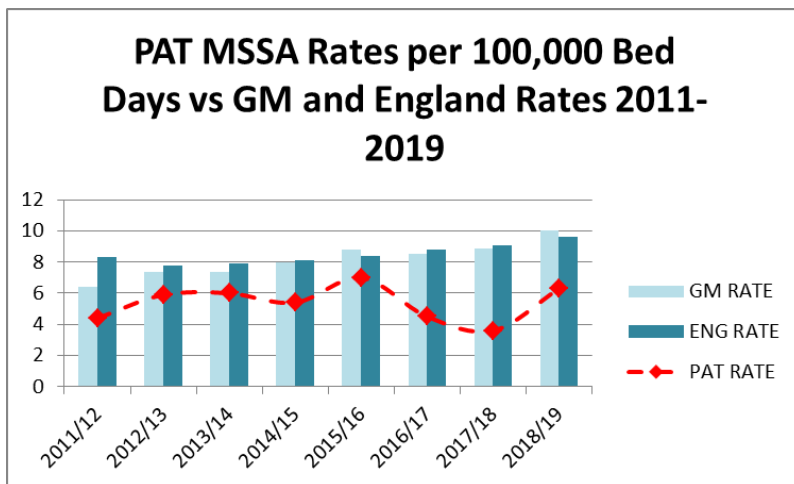
5.0 MSSA

Mandatory reporting to the National DCS includes MSSA (Meticillin sensitive *staphylococcus aureus*) and E.Coli blood stream infections. Whilst there are currently no external objectives set for

these infections, they are monitored and reported to commissioners and as of April 2018 internal improvement objectives have been set by the Northern Care Alliance.

7.1. MSSA PERFORMANCE

The tables below demonstrate PAT's apportioned rate per 100,000 bed days for MSSA bacteraemias when benchmarked with England and Greater Manchester from 2011-2019. PAT's performance has remained below both England and GM rates, and PAT has been identified as a low statistical outlier for these infections. The root cause of the bacteraemias are predominantly community associated skin and soft tissue infections rather than IV device related.



8.0 E COLI BACTERAEMIA

E.coli bacteraemias are commonly associated with Urinary tract; Hepatobiliary and wound/ulcer infections, but are not significantly related to urinary catheters within PAT. The table below demonstrates PAT's apportioned rate per 100,000 bed days for *E.Coli* bacteraemias when benchmarked with both England and Greater Manchester for 2012/19

