

Report Cover Sheet

Agenda Item: 11

Date of Meeting:	Wednesday 29 th July 2020			
Report Title:	Healthcare Associated Infection (HCAI) Performance Report			
Purpose of Report:	To update and advise the Trust Board on the current performance of HCAI mandatory reporting for Gateshead Health NHS Foundation Trust throughout the 2020-21 period.			
	Decision: <input type="checkbox"/>	Discussion: <input type="checkbox"/>	Assurance: <input checked="" type="checkbox"/>	Information: <input type="checkbox"/>
Trust Goals that the report relates to: (Including reference to any specific risk)	<p>Goal 1 Working with partners, we will manage and improve the health of the population of Gateshead, promoting wellbeing and preventing the occurrence and progression of ill-health wherever possible.</p> <p>Goal 2 All the services we deliver will be good or outstanding when assessed against being safe, effective, caring, responsive, and well-led.</p> <p>Goal 3 In all locations and settings of delivery, our patients will experience excellent, timely and seamless care that meets their individual needs.</p>			
Recommendations: (Action required by Board of Directors)	To note the Trust performance on mandatory HCAI reporting and other infection prevention activity as required.			
Financial Implications:	Yes - HCAI and treatment is costly across the whole healthcare economy, delays discharge and increases length of hospital stay. Financial sanctions may also be applied by NHS England and Commissioners.			
Risk Management Implications:	Yes - HCAI has implications for the whole healthcare economy. The expertise, advice and support of the IPC team are crucial in ensuring that the risk and spread of infection is minimised.			
Human Resource Implications:	Yes – organisational culture and behaviours, engagement, responsibility and ownership required across the whole healthcare economy.			
Trust Diversity & Inclusion Objective that the report relates to: (including reference to any specific implications and actions)	<p>Objective 1 All patients receive high quality care through streamlined accessible services with a focus on improving knowledge and capacity to support communication barriers.</p>			
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Presented by:	Hilary Lloyd - Director of Nursing, Midwifery, AHPs & Quality Joint Director of Infection Prevention and Control (DIPC)			

1.0 EXECUTIVE SUMMARY

For many years the NHS standard contract has included targets relating to MRSA blood stream infections (BSI) and *C difficile infection* (CDI), which have achieved year-on-year reductions in the rates of these infections. In December 2019 NHS England/Improvement proposed changes to the standard contract for 2020/21 indicating that additional annual Trust and CCG level BSI reductions for MSSA, E. coli, Klebsiella and Pseudomonas which would be reflected in the contract. Furthermore, NHS E/I proposed removing the financial sanctions and the associated appeals process for MRSA BSI and CDI, deeming them to be inconsistent with each other and no longer fit for purpose.

However, the latter part of 2019/20 has been dominated by the onset of the COVID-19 pandemic which remains ongoing entering 2020/21. This has resulted in the mandatory reporting infection objectives for 2020/21 not yet being set. Nevertheless, the Trust continues to adopt the national aspiration of a zero tolerance approach to all avoidable infections.

To the end of June 2020 the Trust has reported zero (0) Hospital-onset Meticillin resistant *Staphylococcus aureus* (MRSA) blood stream infections (BSI) with a 0.00 rate per 100k bed days and zero (0) Community-onset Meticillin resistant *Staphylococcus aureus* (MRSA) blood stream infections (BSI).

At the end of June 2020 the Trust has reported nine (9) CDI healthcare associated samples - compared to eight (8) for the same period last year. Eight (8) hospital onset healthcare associated (HOHA) and one (1) community onset healthcare associated (COHA).

The Trust reported four (4) Hospital-onset Meticillin sensitive *Staphylococcus aureus* (MSSA) BSI with a rate of 2.3 per 100k bed days showing an increase of two (2) for the same period 2019/20; nine (9) community-onset BSI reflecting a decrease of four (4) from the same period 2019/20.

Reporting of Gram negative BSI became mandatory from April 2019 and national reporting objectives for 2020/21 have not yet been published. From April 2020 to the end of Quarter 1

- *Escherichia coli* (E.coli): nine (9) Hospital-onset BSI with a rate of 5.14 per 100k bed days and fifty five (55) Community-onset samples.
- *Pseudomonas aeruginosa*: one (1) Hospital-onset BSI with a rate of 0.6 per 100k bed days and four (4) Community-onset samples.
- *Klebsiella spp*: one (1) Hospital-onset BSI with a rate of 0.6 per 100k bed days and twelve (12) Community-onset samples.

2020/21 has been dominated by the rapidly evolving COVID-19 pandemic. In March 2020, 64 patients admitted to QEH tested positive for COVID-19. There was a surge during April 2020 with 312 COVID-19 positive patients admitted.

From 14th May 2020 the Trust was required to report COVID -19 positive results against four categories:

Community-Onset – First positive specimen date <=2 days after admission;

Hospital-Onset Indeterminate Healthcare-Associated (HOIHA)– First positive specimen date 3-7 days after admission;

Hospital-Onset Probable Healthcare-Associated (HOPHA) - First positive specimen date 8-14 days after admission;

Hospital-Onset Definite Healthcare-Associated (HODHA) – First positive specimen date 15 or more days after admission.

The Trust reports incidents of COVID-19 positive in-patients via SitRep and investigates all identified nosocomial COVID-19 cases and COVID-19 outbreaks. Nosocomial COVID-19 cases are considered against the three Hospital onset Healthcare- Associated categories and from May 2020 to end Q1 the Trust has reported one (**1**) HOIHA, zero (**0**) HOPHA and zero (**0**) HODHA cases.

2.0 MANDATORY HCAI SURVEILLANCE

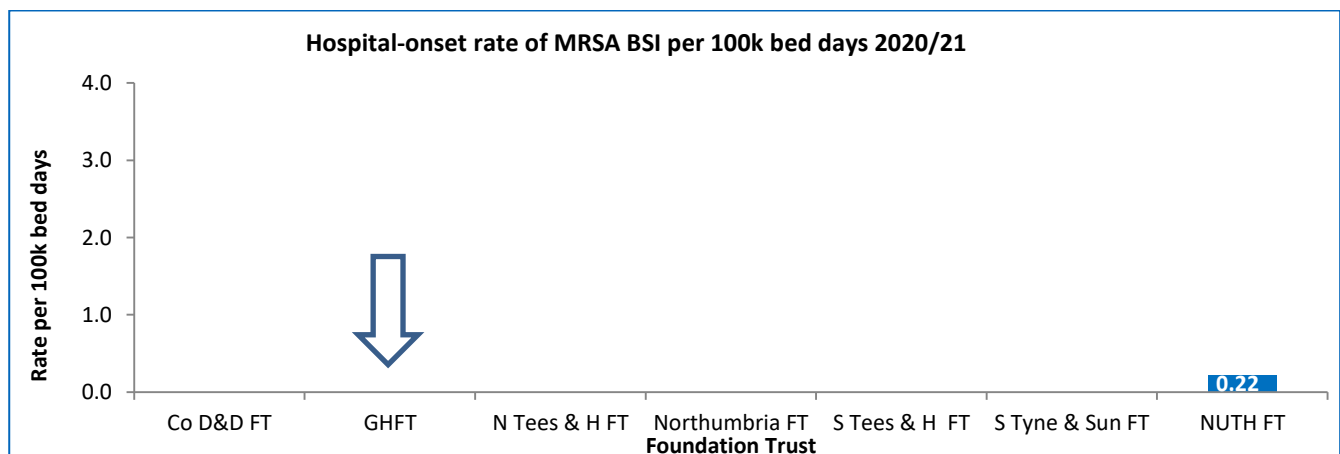
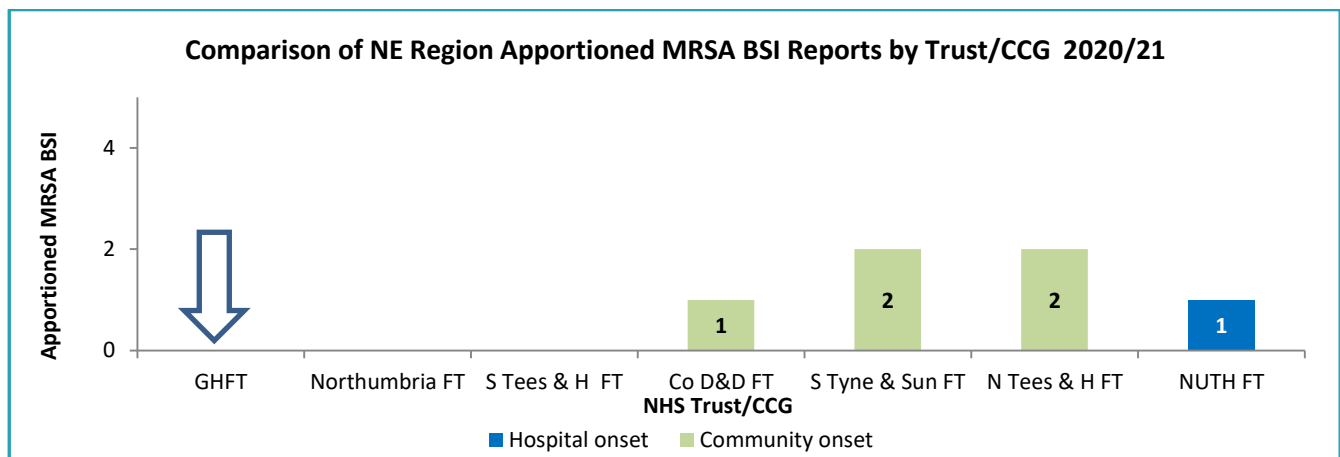
2.1 Meticillin Resistant *Staphylococcus aureus* (MRSA) Blood Stream Infections (BSI)

With regard to patient safety and quality the Trust adopts the national aspiration of attaining a zero tolerance approach to all avoidable infections including MRSA blood stream infections (BSI). All positive Community-onset MRSA samples are attributed to the Newcastle and Gateshead Clinical Commissioning Group (CCG).

The Trust has reported zero (0) Hospital-onset samples of MRSA BSI to end of June 2020 with a rate of 0 per 100k bed days and zero (0) Community-onset MRSA BSI identified in *table 1*.

Table 1 - Acute Trust Data	Q1			Q2			Q3			Q4		
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Hospital-onset MRSA BSI	0	0	0									
Cumulative YTD	0											
2019/20 data = 1/0	0	0	0	0	0	0	0	1	0	0	0	0

Table 1 - Community Data	Q1			Q2			Q3			Q4		
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Community-onset MRSA BSI	0	0	0									
Cumulative YTD	0											
2019/20 data = 2/0	0	0	0	0	1	0	0	0	1	0	0	0

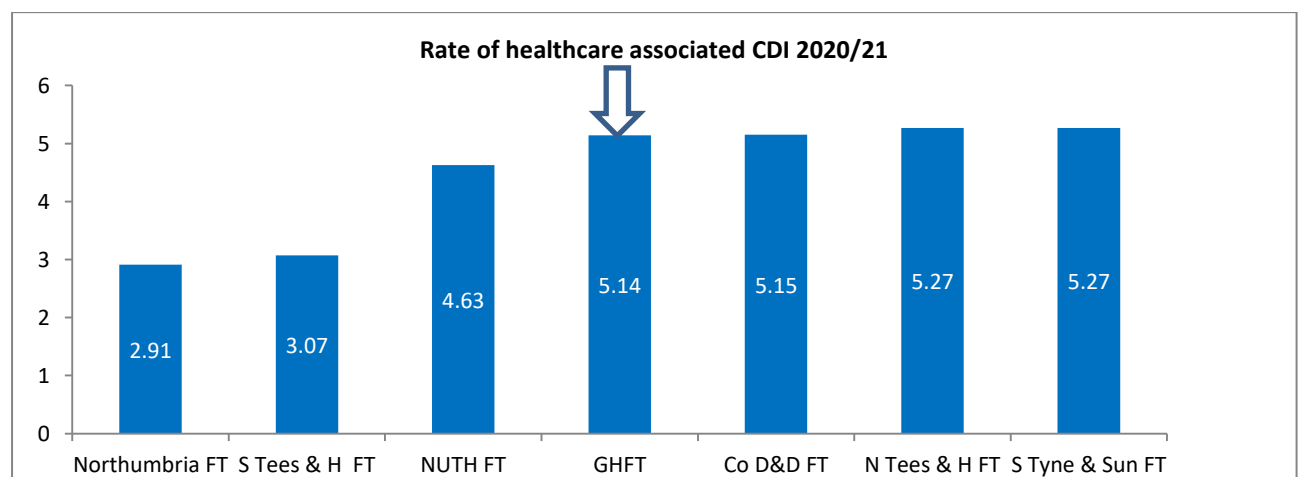
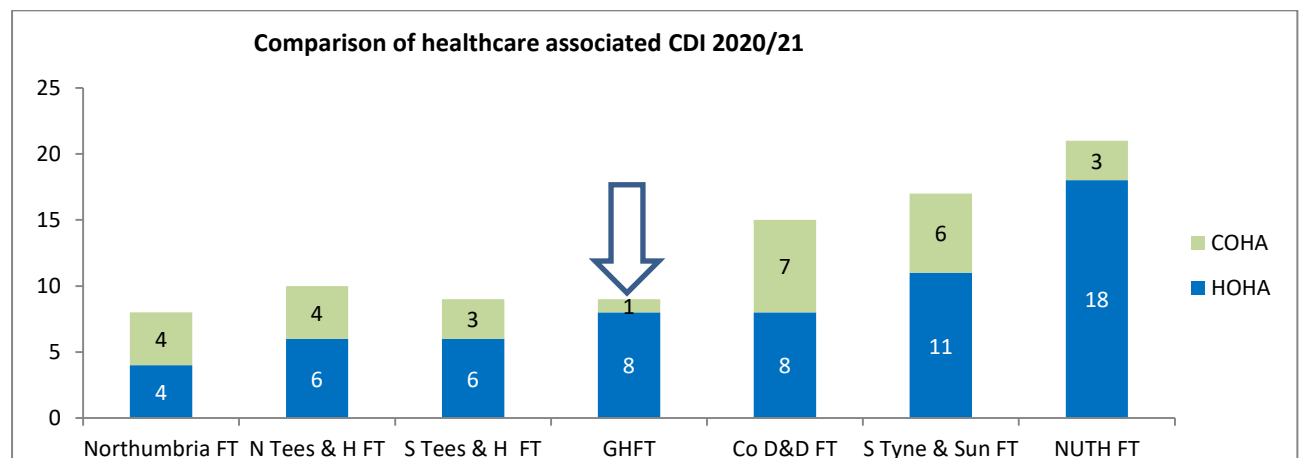


2.2 Clostridium difficile Infection (CDI)

Clostridium difficile infection (CDI) is an unpleasant, and potentially severe or fatal infection that occurs mainly in elderly and other vulnerable patient groups, especially those who have been exposed to antibiotic treatment. Reduction of CDI continues to present a key challenge to patient safety across the Trust. The CDI reporting objective for 2020/21 has not yet been published.

The Trust CDI objective for 2019/20 was forty (**40**) set against healthcare associated samples and an annual rate of 23.6 per 100k bed days. The Trust reported forty five (**44**) healthcare associated CDI samples to the end of March 2020. Twenty two (**22**) hospital onset healthcare associated (HOHA) and twenty three (**23**) community onset healthcare associated (COHA). Forty five (**45**) cases were reviewed and thirty five (**35**), where no lapses in care identified, were successfully presented for appeal. Therefore, the Trust reported ten (**10**) CDI positive samples against the objective of forty (**40**) for 2019/20.

For 2020/21 at the end of June 2020 the Trust has reported nine (**9**) CDI healthcare associated samples - compared to eight (**8**) for the same period last year. Eight (**8**) hospital onset healthcare associated (HOHA) and one (**1**) community onset healthcare associated (COHA).



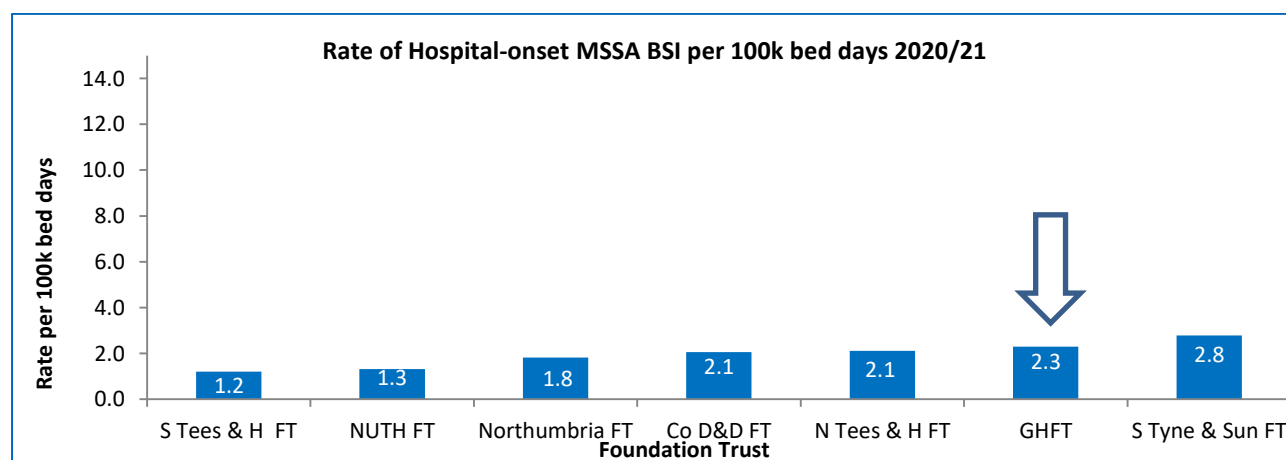
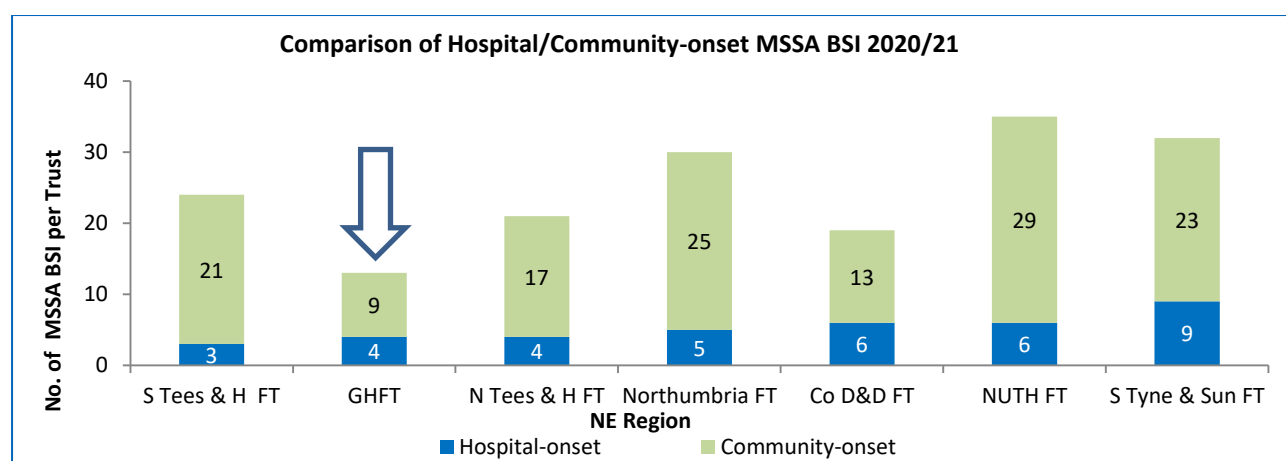
2.3 Meticillin Sensitive *Staphylococcus aureus* (MSSA) Blood Stream Infections (BSI)

Reporting of MSSA BSI is a mandatory requirement and collated nationally by PHE for all Trusts. The anticipated MSSA BSI reporting objective for 2020/21 has not yet been published.

Table 3 indicates the number of apportioned MSSA BSI against 2019/20 as a comparison and the end June 2020 the Trust reports four (4) Hospital-onset MSSA BSI with a rate of 2.3 per 100k bed days showing an increase of two (2) for the same period 2019/20; nine (9) community-onset samples reflecting a decrease of four (4) from the same period 2019/20.

Table 3 - Acute Trust Data	Q1			Q2			Q3			Q4		
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Hospital-onset MSSA BSI	0	1	3									
Cumulative YTD	4											
2019/20 Actual = 7	0	0	2	1	0	0	2	0	0	1	1	0

Table 3 - Community Data	Q1			Q2			Q3			Q4		
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Community-onset MSSA BSI	4	2	3									
Cumulative YTD	9											
2019/20 Actual = 52	7	3	4	2	5	3	3	4	12	2	4	3



3.0 GRAM-NEGATIVE BLOOD STREAM INFECTIONS (GNBSI) - ENGLAND ONLY

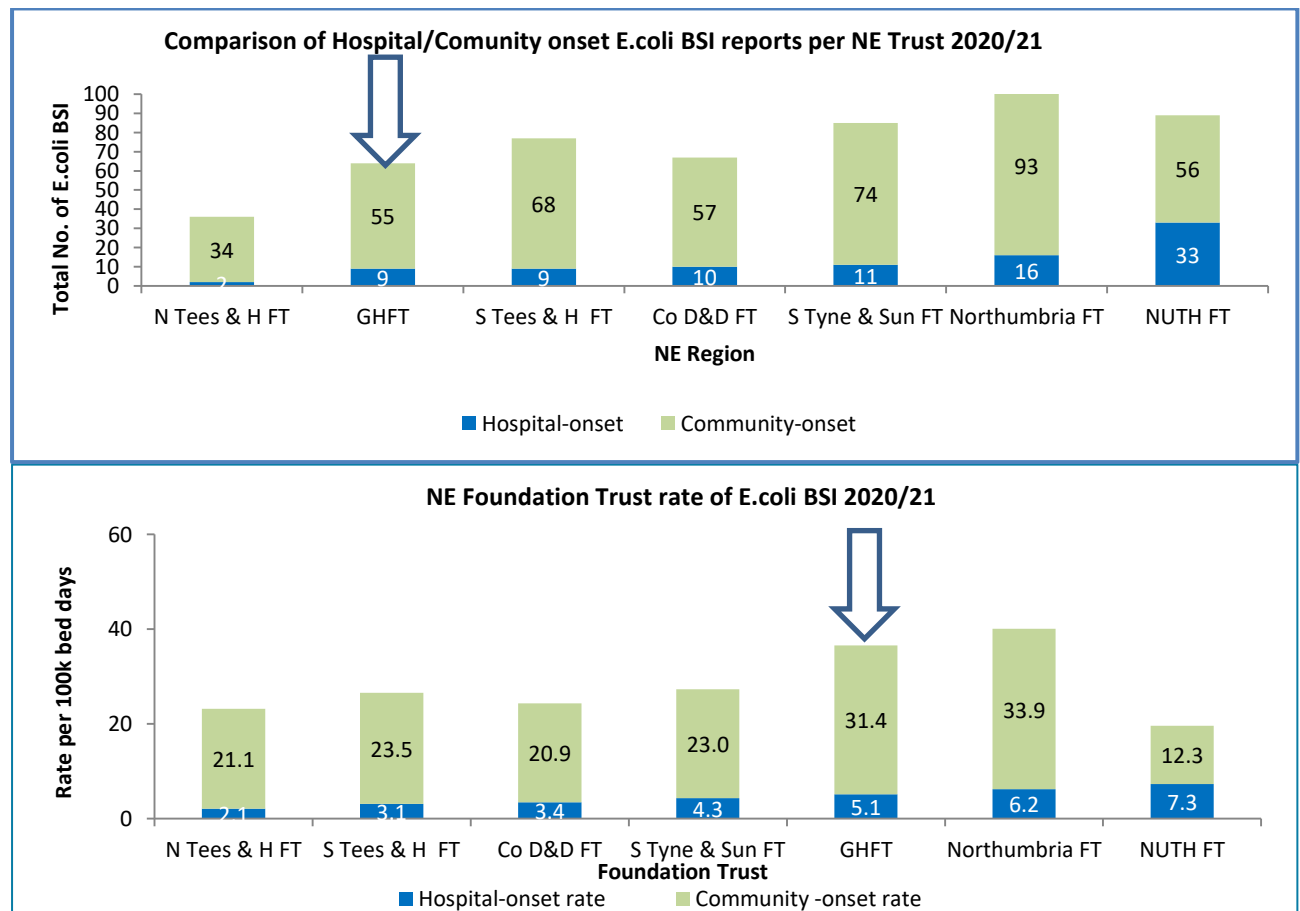
A national ambition to reduce healthcare associated GNBSI by 50% by March 2021 was introduced from April 2017 in England. This was reviewed under the Governments 5 year Antimicrobial Strategy which advised a 25% reduction of *E.coli* by 2020/21 and the full 50% reduction by 2023/24. The anticipated Gram-negative BSI reporting objectives for 2020/21 have not yet been published.

3.1 *Escherichia coli* BSI (*E. coli*)

The Trust reports nine (9) Hospital-onset BSI and fifty five (55) Community-onset *E.coli* BSI from April 2020 to end of Q1 as indicated in *table 4*. There was a prolonged period of increased heat in May 2020 which could have been a contributory factor in the increased incidence.

Table 4 - Acute Trust Data	Q1			Q2			Q3			Q4		
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Hospital-onset (HO) <i>E.coli</i> BSI	2	3	4									
YTD	9											
HO <i>E.coli</i> BSI 2019/2020 = 41	2	5	4	3	2	5	4	3	2	6	3	2

Table 4 - Community Data	Q1			Q2			Q3			Q4		
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Community-onset (CO) <i>E.coli</i> BSI	13	26	16									
YTD	55											
CO <i>E.coli</i> BSI 2019/2020 = 186	14	10	16	23	16	13	13	12	13	21	17	18



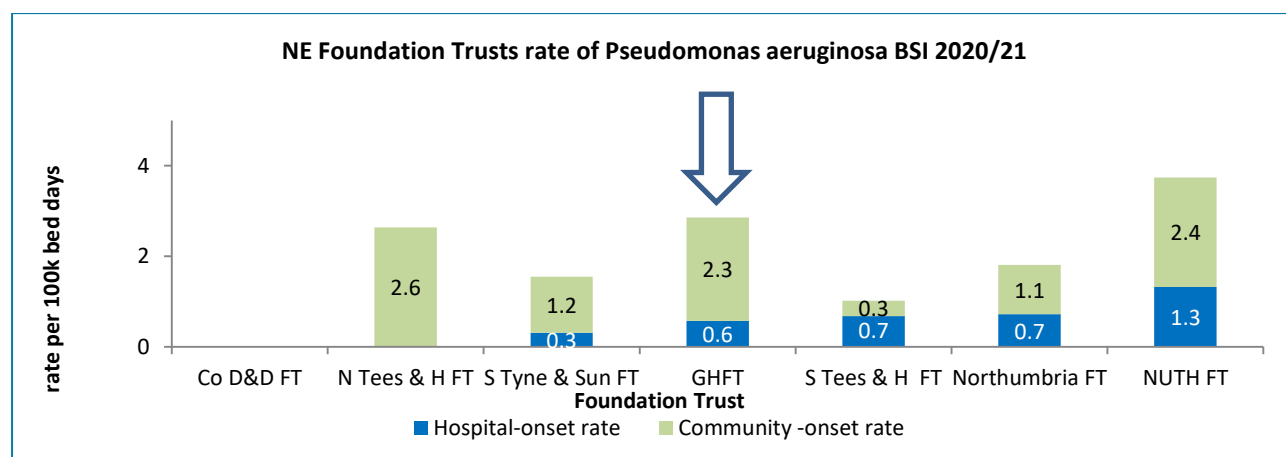
3.2 *Pseudomonas aeruginosa* BSI

Pseudomonas aeruginosa is a common opportunistic Gram-negative pathogen often found in soil and ground water. It rarely affects healthy individuals however can cause a wide range of infections, particularly in those with a weakened immune system. In hospitals, the organism can contaminate devices that are left inside the body, such as respiratory equipment and urinary catheters.

The Trust reports one (1) Hospital-onset BSI with a rate of 0.6 per 100k bed days and four (4) Community-onset BSI with *P. aeruginosa* from April 2020 to end Q1.

Table 5 - Acute Trust Data	Q1			Q2			Q3			Q4		
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Hospital-onset (HO) <i>P. aeruginosa</i> BSI	1	0	0									
Cumulative YTD	1											
HO <i>P. aeruginosa</i> BSI 2019/2020 = 8	2	0	2	1	1	0	1	1	0	0	0	0

Table 5 - Community Data	Q1			Q2			Q3			Q4		
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Community-onset (CO) <i>P. aeruginosa</i> BSI	0	3	1									
Cumulative YTD	4											
CO <i>P. aeruginosa</i> BSI 2019/2020 = 16	4	1	0	1	1	0	1	2	1	4	0	1



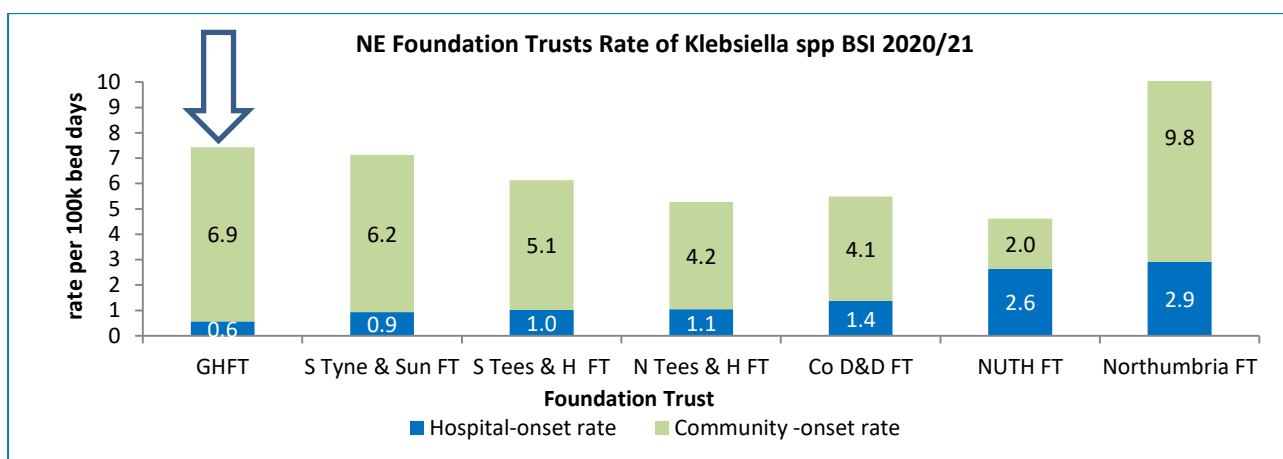
3.3 *Klebsiella species* BSI

Klebsiella species are a type of bacteria that are found ubiquitously in the environment and also in the human intestinal tract and are commonly associated with a range of HCAI. In healthcare settings, *Klebsiella* infections are seen in vulnerable, immunocompromised and unwell patients who have other co-morbidities and who are receiving treatment for other conditions.

The Trust reports one (1) Hospital-onset BSI with a 0.6 rate per 100k bed days and twelve (12) Community-onset BSI to date.

Table 6 - Acute Trust Data	Q1			Q2			Q3			Q4		
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Hospital-onset (HO) <i>Klebsiella spp.</i> BSI	0	0	1									
Cumulative YTD	1											
HO <i>Klebsiella spp.</i> BSI 2019/20 = 10	0	0	0	0	1	2	1	2	1	1	1	1

Table 6 - Community Data	Q1			Q2			Q3			Q4		
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Community-onset (CO) <i>Klebsiella spp.</i> BSI	6	1	5									
Cumulative YTD	12											
CO <i>Klebsiella spp.</i> BSI 2019/2020 = 47	5	2	6	3	1	5	6	5	4	4	2	4



4.0 PERIODS OF INCREASED INCIDENCE (PII) AND OUTBREAKS

An outbreak is the occurrence of two or more actual or potentially related infections within a ward/department/area of practice within the Trust. This is also referred to as a 'Period of Increased Incidence' (PII) for clusters of known/unknown infections. COVID-19 outbreak definition is outlined in section 5.0

The Trust has experienced zero (0) PII due to confirmed Norovirus infections from April 2020 the end Q1. Any PIIs are managed consistently with the outbreak policy to minimise disruption to bed occupancy and patient flow.

Table 7 indicates the number of PII by month against 2019/20.

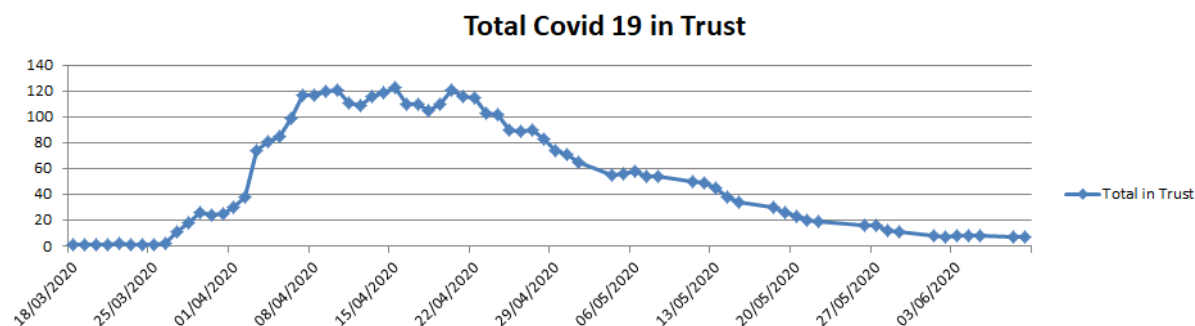
Table 7 - Outbreaks & Periods of Increased Incidence (PII)	Q1			Q2			Q3			Q4		
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
2020/21	0	0	0									
YTD	0											
2019/20 Actual = 12	0	0	0	0	0	1	1	2	0	2	6	0

5.0 COVID - 19

COVID-19 is a novel coronavirus identified in 2019 which has resulted in a pandemic. The emerging evidence base on COVID-19 is rapidly evolving but at the time of writing transmission of COVID-19 is thought to occur mainly through respiratory droplets generated by coughing and sneezing, and through contact with contaminated surfaces. The predominant modes of transmission are assumed to be droplet and contact and require the use of standard infection control precautions and transmission based precautions when managing patients with suspected or confirmed COVID-19.

The latter part of 2019/20 and the start of 2020/21 have been dominated by the rapidly evolving COVID-19 pandemic. During the initial surge period there were rapid and frequent changes in guidance from national bodies, including Public Health England and NHS England/Improvement which required rapid interpretation and implementation.

In March 2020, 64 patients admitted to QEH tested positive for COVID-19. There was a surge during April 2020 with 312 COVID-19 positive patients admitted.



The Trust is now required to report instance of healthcare associated COVID-19 cases against 3 categories:

- Hospital-Onset Definite Healthcare-Associated – First positive specimen date 15 or more days after admission to trust.
- Hospital-Onset Probable Healthcare-Associated - First positive specimen date 8-14 days after admission to trust
- Hospital-Onset Indeterminate Healthcare-Associated – First positive specimen date 3-7 days after admission to trust.

Table 8 indicates the number of cases reported by the organisation from April 2020 to end Q1 and demonstrates the significant reduction in incidence during that period.

Table 8	Q1			Q2			Q3			Q4		
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Hospital-Onset Definite Healthcare-Associated	n/a	0	0									
Hospital-Onset Probable Healthcare-Associated	n/a	0	0									
Hospital-Onset Indeterminate Healthcare-Associated	n/a	1	0									

COVID-19 outbreaks

A COVID-19 outbreak policy has been created to reflect the updated NHS England/Improvement & PHE guidance. From 14th May 2020 NHS E/I and PHE require COVID-19 outbreaks to be declared.

Table 9 identifies that the Trust has reported zero (0) COVID-19 related outbreaks from April 2020 – end Q1.

Table 9 COVID 19 outbreaks 2020/21	Q1			Q2			Q3			Q4		
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Inpatient setting	0	0	0									
Outpatient setting	0	0	0									
Non-clinical workplace	0	0	0									

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Head of Infection Prevention and Control