

# Infection Prevention and Control Report

Quarter 2 (July to September 2023)

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## Abstract

The Infection Prevention and Control (IPC) Team continue to work towards three priorities:

**PRIORITY 1 – Prevent and promote** Antimicrobial Resistance (AMR) by contributing to the National Action Plan by targeted project work in care settings and via health promotional activities.

**PRIORITY 2 – Respond to and reduce** outbreaks of infections in settings and work with partner agencies and stakeholders to reduce the number of outbreaks via health promotion campaigns, training, and auditing.

**PRIORITY 3 – Develop and expand** the IPC workforce, IPC knowledge and IPC best practice across Lancashire and Blackburn with Darwen by offering opportunities for development and foster confidence.

In relation to healthcare associated infections (HCAIs) this quarter, there has been a marked increase in the Blood Stream Infections (BSIs).

In relation to outbreaks within care settings this quarter, there has been an increase in scabies. The IPC Team produced and continually update their Scabies Booklet to assist care settings which is read alongside United Kingdom Health Security Agency (UKHSA) National Guidance. Each setting in a scabies outbreak now also has a named worker for the duration of the outbreak for continuity.



## Introduction

The purpose of this report is to provide an update on the work of the Infection Prevention Team at Lancashire County Council to the Director of Public Health at Lancashire County Council and how the team is contributing to the wider reduction of HCAs. The HCAI data is inputted into the Data Capture System by the Acute Trusts and the IPC Team collate this data on behalf of the Health Protection Board.

The report includes the data for HCAs which are subject to mandatory surveillance and progress towards any trajectories where appropriate.

It is recognised that some infections are inevitable because of healthcare. HCAs have a significant impact on morbidity and mortality whilst carrying a financial risk due to unscheduled care and prescribing costs. There are many HCAs, but the national focus is on:

Meticillin resistant *Staphylococcus Aureus* (MRSA) blood stream infections

Meticillin Susceptible *Staphylococcus Aureus* (MSSA) blood stream infections

Clostridioides difficile infections (CDI)

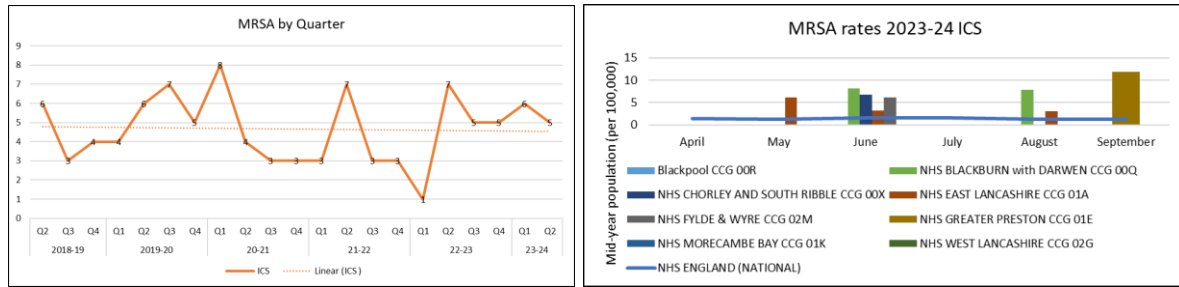
Gram-negative blood stream infections including:

- *Escherichia coli* (*E. coli*),
- *Pseudomonas* and
- *Klebsiella*

The report will also focus on the IPC Team and the work being undertaken contributing towards the reduction of HCAs and other infections.



## MRSA



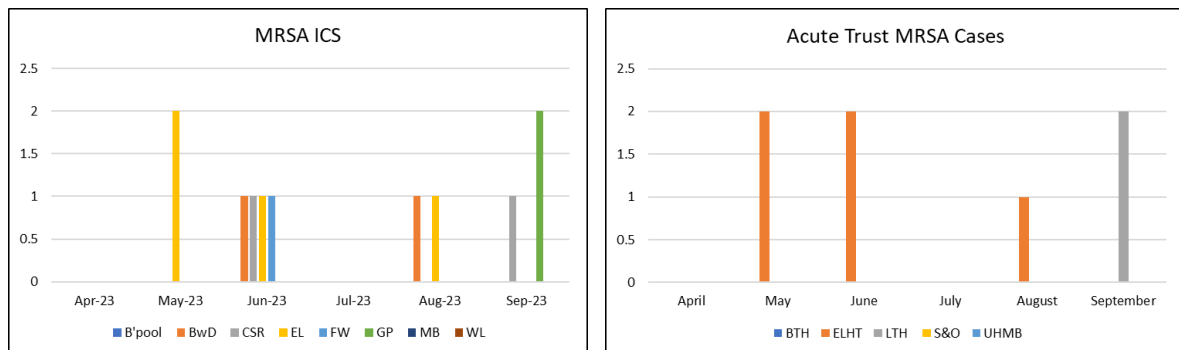
### Evaluation:

Across the ICS there has been a slight decrease in MRSA cases in Q2 and a total of 11 Year to date.

When comparing to North West data there has been a significant decrease in Q2 from 29 cases in Q1 to 17 in Q2.

When comparing to National data, the ICS is similar as there was little difference in Q1 to Q2 cases.

The charts below show the areas and months the cases were recorded in.



Post Infection Reviews are undertaken by the Acute Trusts for hospital cases and the Integrated Care Board (ICB) for community cases.

Learning is shared and may lead to targeted work for the IPC Team.

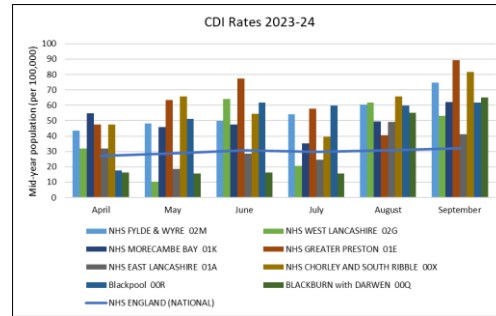
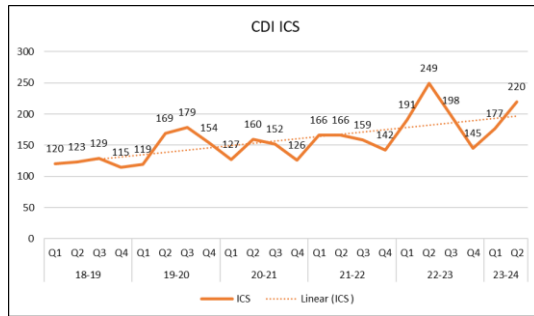
### IPC Team Focus:

Raising awareness of AMR in forums.

Promoting hand hygiene and the use of standard precautions during communications with care settings.



## Clostridioides Difficile



### Evaluation:

Across the ICS there has been an increase in CDI cases in Q2

When comparing to North West data, and the National data the ICS is following the same trend there have been increases in both Q1 and Q2.

| CDI ICB data                     | Apr-23 | May-23 | Jun-23 | Jul-23 | Aug-23 | Sep-23 | Total | Objective to Date | Breach |
|----------------------------------|--------|--------|--------|--------|--------|--------|-------|-------------------|--------|
| B'pool                           | 2      | 6      | 7      | 7      | 7      | 7      | 36    | 41                |        |
| BwD                              | 2      | 2      | 2      | 2      | 7      | 8      | 23    | 17                | 35%    |
| CSR                              | 7      | 10     | 8      | 6      | 10     | 12     | 53    | 33                | 61%    |
| EL                               | 10     | 6      | 9      | 8      | 16     | 13     | 62    | 35                | 80%    |
| FW                               | 7      | 8      | 8      | 9      | 10     | 12     | 54    | 43                | 26%    |
| GP                               | 8      | 11     | 13     | 10     | 7      | 15     | 64    | 43                | 49%    |
| MB                               | 15     | 13     | 13     | 10     | 14     | 17     | 82    | 72                | 13%    |
| WL                               | 3      | 1      | 6      | 2      | 6      | 5      | 23    | 14                | 65%    |
| Total Hospital onset             | 38     | 32     | 40     | 33     | 49     | 57     | 249   |                   |        |
| Total Community Onset            | 16     | 25     | 26     | 21     | 28     | 32     | 148   |                   |        |
| Total                            | 54     | 57     | 66     | 54     | 77     | 89     | 397   | 297               | 34%    |
| Percentage change from last year | -2%    | -2%    | -7%    | -14%   | -16%   | -10%   | -     |                   |        |

| CDI Acute data                   | April | May | June | July | August | September | Total | Objective to Date | Breach |
|----------------------------------|-------|-----|------|------|--------|-----------|-------|-------------------|--------|
| BTH                              | 3     | 5   | 9    | 8    | 8      | 10        | 43    | 44                |        |
| ELHT                             | 7     | 4   | 2    | 4    | 6      | 11        | 34    | 26                | 28%    |
| LTH                              | 16    | 17  | 19   | 13   | 19     | 25        | 109   | 60                | 80%    |
| S&O                              | 2     | 0   | 4    | 2    | 5      | 5         | 18    | 20                |        |
| UHMB                             | 12    | 6   | 6    | 5    | 8      | 7         | 44    | 41                | 6%     |
| Total                            | 40    | 32  | 40   | 32   | 46     | 58        | 248   | 192               | 29%    |
| Percentage change from last year | 11%   | 6%  | -4%  | -14% | -14%   | -7%       | -     |                   |        |



Post Infection Reviews are undertaken by the Acute Trusts for hospital cases and the ICB for community cases.

Learning is shared and may lead to targeted work for the IPC Team.

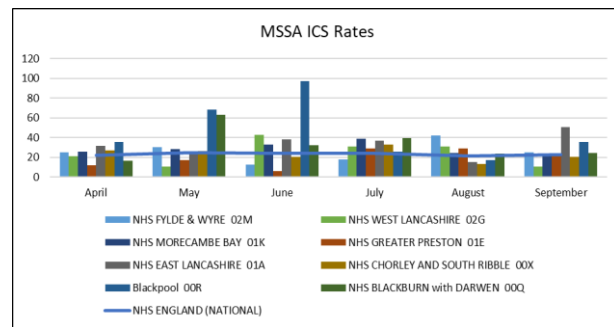
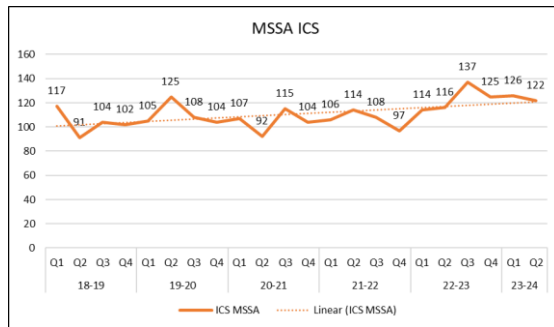
**IPC Team Focus:**

Delivering Fundamentals of IPC forums covering environmental cleaning and chain of infection.

Promoting hand hygiene and the use of standard precautions during communications with care settings.



## Meticillin Susceptible Staphylococcus Aureus (MSSA)



### Evaluation:

Across the ICS there has been a slight decrease in Q2.

When comparing to North West data, the ICS is following the same trend, both North West data and National data show a decrease in Q2.

| MSSA ICS data                    | Apr-23 | May-23 | Jun-23 | Jul-23 | Aug-23 | Sep-23 | Total |
|----------------------------------|--------|--------|--------|--------|--------|--------|-------|
| B'pool                           | 4      | 8      | 11     | 3      | 2      | 4      | 32    |
| BwD                              | 2      | 8      | 4      | 5      | 3      | 3      | 25    |
| CSR                              | 4      | 4      | 3      | 5      | 2      | 3      | 21    |
| EL                               | 10     | 8      | 12     | 12     | 5      | 16     | 63    |
| FW                               | 4      | 5      | 2      | 3      | 7      | 4      | 25    |
| GP                               | 2      | 3      | 1      | 5      | 5      | 4      | 20    |
| MB                               | 7      | 8      | 9      | 11     | 7      | 6      | 48    |
| WL                               | 2      | 1      | 4      | 3      | 3      | 1      | 14    |
| Total Hospital onset             | 17     | 25     | 17     | 27     | 16     | 19     | 121   |
| Total Community Onset            | 18     | 20     | 29     | 20     | 18     | 22     | 127   |
| Total                            | 35     | 45     | 46     | 47     | 34     | 41     | 248   |
| Percentage change from last year | -5%    | 8%     | 11%    | 18%    | 7%     | 8%     | -     |

| MSSA Acute data                  | April | May | June | July | August | September | Total |
|----------------------------------|-------|-----|------|------|--------|-----------|-------|
| BTH                              | 4     | 7   | 6    | 3    | 3      | 3         | 26    |
| ELHT                             | 7     | 9   | 5    | 11   | 6      | 8         | 46    |
| LTH                              | 2     | 5   | 1    | 9    | 4      | 1         | 22    |
| S&O                              | 1     | 0   | 3    | 2    | 0      | 3         | 9     |
| UHMB                             | 3     | 4   | 3    | 1    | 3      | 5         | 19    |
| Total                            | 17    | 25  | 18   | 26   | 16     | 20        | 122   |
| Percentage change from last year | -6%   | 17% | 7%   | 21%  | 9%     | 12%       | -     |

Post Infection Reviews are not routinely completed for MSSA by the Acute Trusts or the ICB.

### IPC Team Focus:

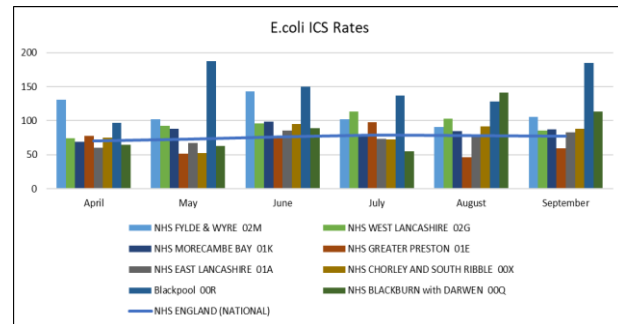
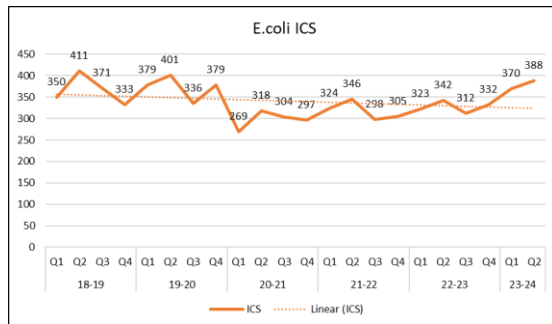
Raising awareness of AMR in forums.

Promoting hand hygiene and the use of standard precautions during communications with care settings.





## E.coli



### Evaluation:

Across the ICS there has been a significant increase in cases in Q2.

When comparing to North West and National data, the ICS is following the same trend, both North West data and National data show a significant increase in Q2.

| E.Coli data                      | Apr-23 | May-23 | Jun-23 | Jul-23 | Aug-23 | Sep-23 | Total | Objective to Date | Breach |
|----------------------------------|--------|--------|--------|--------|--------|--------|-------|-------------------|--------|
| B'pool                           | 11     | 22     | 17     | 16     | 15     | 21     | 102   | 50                | 104%   |
| BwD                              | 8      | 8      | 11     | 7      | 18     | 14     | 66    | 50                | 32%    |
| CSR                              | 11     | 8      | 14     | 11     | 14     | 13     | 71    | 57                | 25%    |
| EL                               | 19     | 22     | 27     | 24     | 26     | 26     | 144   | 130               | 11%    |
| FW                               | 21     | 17     | 23     | 17     | 15     | 17     | 110   | 61                | 80%    |
| GP                               | 13     | 9      | 13     | 17     | 8      | 10     | 70    | 60                | 16%    |
| MB                               | 19     | 25     | 27     | 22     | 24     | 24     | 141   | 117               | 21%    |
| WL                               | 7      | 9      | 9      | 11     | 10     | 8      | 54    | 41                | 32%    |
| Total Hospital onset             | 52     | 60     | 48     | 45     | 55     | 53     | 313   |                   |        |
| Total Community Onset            | 57     | 60     | 93     | 80     | 75     | 80     | 445   |                   |        |
| Total                            | 109    | 120    | 141    | 125    | 130    | 133    | 758   | 566               | 34%    |
| Percentage change from last year | 8%     | 6%     | 15%    | 13%    | 12%    | 14%    | -     |                   |        |

| E. Coli data                     | April | May | June | July | Aug | Sept | Total | Objective to Date | Breach |
|----------------------------------|-------|-----|------|------|-----|------|-------|-------------------|--------|
| BTH                              | 15    | 18  | 13   | 14   | 13  | 19   | 92    | 43                | 114%   |
| ELHT                             | 11    | 11  | 16   | 8    | 15  | 14   | 75    | 65                | 16%    |
| LTH                              | 7     | 11  | 10   | 10   | 8   | 8    | 54    | 47                | 14%    |
| S&O                              | 3     | 9   | 4    | 6    | 5   | 7    | 34    | 24                | 42%    |
| UHMB                             | 11    | 14  | 7    | 3    | 13  | 6    | 54    | 48                | 11%    |
| Total                            | 47    | 63  | 50   | 41   | 54  | 54   | 309   | 227               | 36%    |
| Percentage change from last year | 31%   | 13% | 7%   | 4%   | 7%  | 13%  | -     |                   |        |

Post Infection Reviews are not routinely completed for E.coli by the Acute Trusts or the ICB.



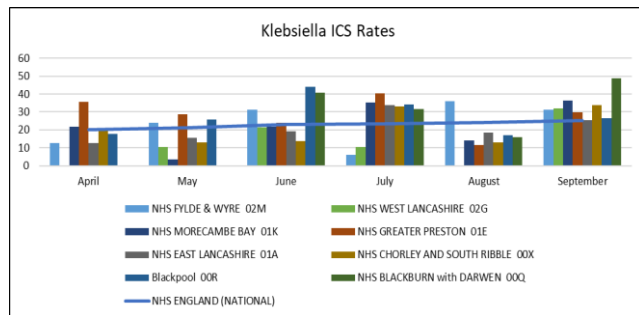
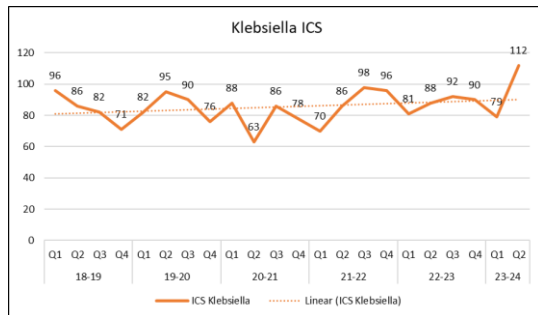
**IPC Team Focus:**

Delivering Hydration Heroes Sessions across day services.

Promoting hand hygiene and the use of standard precautions during communications with care settings.



## Klebsiella spp.



### Evaluation:

Across the ICS there has been a significant increase in cases in Q2.

When comparing to North West and National data, the ICS is following the same trend, both North West data and National data show a significant increase in Q2.

| Klebsiella ICS data              | Apr-23 | May-23 | Jun-23 | Jul-23 | Aug-23 | Sep-23 | Total | Objective to Date | Breach |
|----------------------------------|--------|--------|--------|--------|--------|--------|-------|-------------------|--------|
| B'pool                           | 2      | 3      | 5      | 4      | 2      | 3      | 19    | 17                | 15%    |
| BwD                              | 0      | 0      | 5      | 4      | 2      | 6      | 17    | 14                | 18%    |
| CSR                              | 3      | 2      | 2      | 5      | 2      | 5      | 19    | 12                | 52%    |
| EL                               | 4      | 5      | 6      | 11     | 6      | 8      | 40    | 27                | 48%    |
| FW                               | 2      | 4      | 5      | 1      | 6      | 5      | 23    | 19                | 21%    |
| GP                               | 6      | 5      | 4      | 7      | 2      | 5      | 29    | 17                | 71%    |
| MB                               | 6      | 1      | 6      | 10     | 4      | 10     | 37    | 24                | 51%    |
| WL                               | 0      | 1      | 2      | 1      | 0      | 3      | 7     | 9                 |        |
| Total Hospital onset             | 11     | 9      | 15     | 18     | 10     | 20     | 83    |                   |        |
| Total Community Onset            | 12     | 12     | 20     | 25     | 14     | 25     | 108   |                   |        |
| Total                            | 23     | 21     | 35     | 43     | 24     | 45     | 191   | 140               | 36%    |
| Percentage change from last year | -4%    | -23%   | -2%    | 18%    | 12%    | 13%    | -     |                   |        |

| Klebsiella Acute Trust data      | April | May  | June | July | August | Sept | Total | Objective to Date | Breach |
|----------------------------------|-------|------|------|------|--------|------|-------|-------------------|--------|
| BTH                              | 2     | 4    | 3    | 2    | 3      | 2    | 16    | 20                |        |
| ELHT                             | 0     | 2    | 4    | 5    | 4      | 8    | 23    | 20                | 12%    |
| LTH                              | 5     | 2    | 2    | 5    | 0      | 4    | 18    | 12                | 44%    |
| S&O                              | 0     | 2    | 2    | 1    | 2      | 2    | 9     | 6                 | 39%    |
| UHMB                             | 4     | 0    | 2    | 5    | 3      | 5    | 19    | 10                | 91%    |
| Total                            | 11    | 10   | 13   | 18   | 12     | 21   | 85    |                   |        |
| Percentage change from last year | -21%  | -19% | -11% | 16%  | 16%    | 16%  | -     |                   |        |

Post Infection Reviews are not routinely completed for Klebsiella by the Acute Trusts or the ICB.



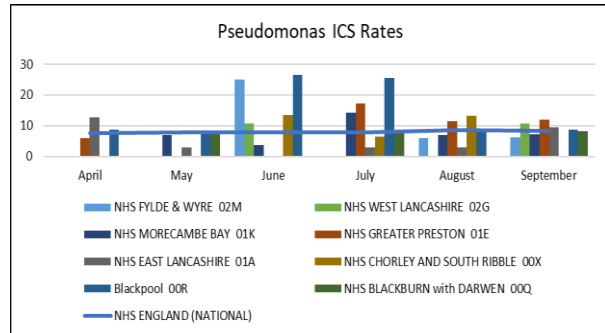
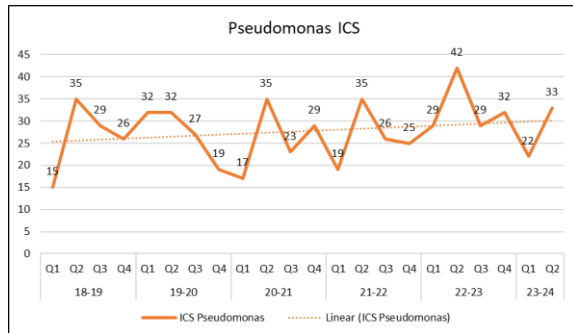
**IPC Team Focus:**

Delivering Fundamentals of IPC forums covering environmental cleaning and chain of infection.

Promoting hand hygiene and the use of standard precautions during communications with care settings.



## Pseudomonas Aeruginosa



### Evaluation:

Across the ICS there has been a significant increase in cases in Q2.

When comparing to North West and National data, the ICS is following the same trend, both North West data and National data show a significant increase in Q2.

| Pseudo data                      | Apr-23 | May-23 | Jun-23 | Jul-23 | Aug-23 | Sep-23 | Total | Objective to Date | Breach |
|----------------------------------|--------|--------|--------|--------|--------|--------|-------|-------------------|--------|
| B'pool                           | 1      | 1      | 3      | 3      | 1      | 1      | 10    | 3                 | 187%   |
| BwD                              | 0      | 1      | 0      | 1      | 0      | 1      | 3     | 2                 | 52%    |
| CSR                              | 0      | 0      | 2      | 1      | 2      | 0      | 5     | 6                 |        |
| EL                               | 4      | 1      | 0      | 1      | 1      | 3      | 10    | 6                 | 54%    |
| FW                               | 0      | 0      | 4      | 0      | 1      | 1      | 6     | 6                 |        |
| GP                               | 1      | 0      | 0      | 3      | 2      | 2      | 8     | 5                 | 61%    |
| MB                               | 0      | 2      | 1      | 4      | 2      | 2      | 11    | 10                | 10%    |
| WL                               | 0      | 0      | 1      | 0      | 0      | 1      | 2     | 4                 |        |
| Total Hospital onset             | 3      | 3      | 8      | 6      | 7      | 8      | 35    |                   |        |
| Total Community onset            | 3      | 2      | 3      | 7      | 2      | 3      | 20    |                   |        |
| Total                            | 5      | 4      | 8      | 10     | 8      | 10     | 45    | 44                | 3%     |
| Percentage change from last year | -14%   | -21%   | -24%   | -10%   | -21%   | -23%   | -     |                   |        |

| Pseudo data                      | April | May | June | July | August | September | Total | Objective to Date | Breach |
|----------------------------------|-------|-----|------|------|--------|-----------|-------|-------------------|--------|
| BTH                              | 0     | 0   | 5    | 1    | 1      | 0         | 7     | 9                 |        |
| ELHT                             | 3     | 2   | 0    | 1    | 1      | 1         | 8     | 3                 | 130%   |
| LTH                              | 0     | 0   | 0    | 2    | 3      | 4         | 9     | 6                 | 50%    |
| S&O                              | 1     | 0   | 1    | 1    | 1      | 0         | 4     | 2                 | 63%    |
| UHMB                             | 0     | 1   | 0    | 2    | 2      | 2         | 7     | 5                 | 56%    |
| Total                            | 4     | 3   | 6    | 7    | 8      | 7         | 35    | 25                | 38%    |
| Percentage change from last year | 300%  | -   | 38%  | 29%  | -28%   | -26%      | -     |                   |        |



Post Infection Reviews are not routinely completed for Pseudomonas Aeruginosa by the Acute Trusts or the ICB.

**IPC Team Focus:**

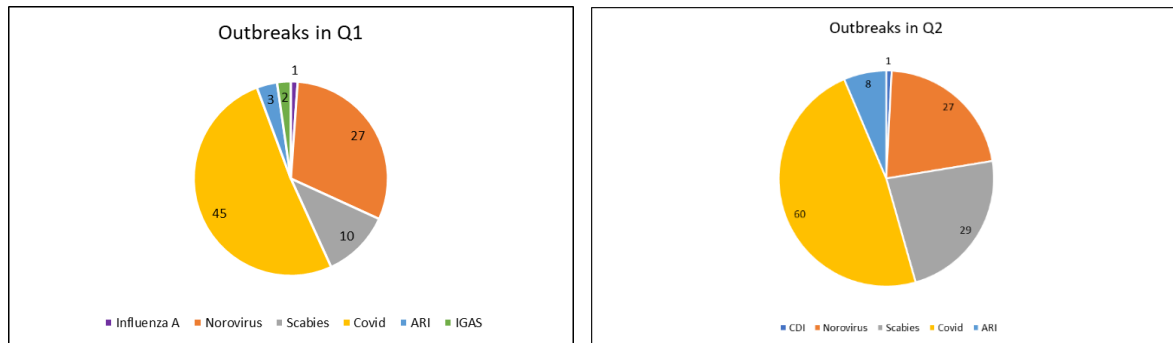
Delivering Fundamentals of IPC forums covering environmental cleaning and chain of infection.

Promoting hand hygiene and the use of standard precautions during communications with care settings.



## Outbreaks

Number of active incidents and outbreaks within care settings in Lancashire and Blackburn with Darwen by month



There has been an increase in the number of COVID-19 outbreaks compared to last quarter. There has also been a significant increase in scabies outbreaks across the ICS, the team have worked with providers to giving advice on managing the outbreaks.

### IPC Team Focus:

Outbreaks of scabies increased in quarter 2 in comparison to quarter 1. There was a supply chain issue with the topical treatment of permethrin which also delayed the closure of outbreaks. This was a national supply chain issue and not localised to Lancashire.

The team have produced several resources to assist care settings with their scabies outbreaks to include;

- a booklet which has been produced based on [UKHSA National Guidance](#) which includes detailed information regarding cleaning, laundry and line listing information for both confirmed cases of residents and staff
- an agreed process with the IPC Team at the ICB detailing when to escalate cases
- settings now also have a named worker from LCC IPC Team providing continuity during the whole of the outbreak. The same named worker will also chair any Incident Management Team (IMT) Meetings if required.



## IPC work streams & observations

### Forums

#### Fundamentals of IPC Forum

These forums are currently held every 6 weeks and are available for anyone working within a care setting to attend. They are aimed at new members of staff or staff wishing to complete a refresher session.

The aims of the sessions are for participants to:

- Understand the chain of infection and how it can be broken.
- Familiarisation of standard precautions
- Build upon knowledge of how infections can be prevented/controlled.

There were 9 attendees in Q2.

#### Hand Hygiene School Awareness Sessions

These sessions are free for schools to book directly with the team and are available to primary schools from Reception or Year 6. Sessions are differentiated dependent on Key Stage and a PowerPoint presentation has been developed to share with class teacher prior to the visit.

9 hand hygiene sessions took place in Q2 across Lancashire and BwD.

#### Hydration Sessions

There have been 5 Hydration Heroes session taken place in Q2. These were held to raise awareness of hydration and recognising the signs of dehydration, prevent UTI's and in turn reduce E.coli infections. The sessions have all received 100% positive feedback.

#### Audits

The IPC team have prioritised audits of care homes that have received a recent 'inadequate' or 'requires improvement' CQC rating. The team also prioritised care homes that have previously received a 'red' IPC Audit and care homes with no previous IPC Audit.

| North - 31 |       |       | Central - 22 |       |       | East - 20 |       |       | BwD - 5 |       |       |
|------------|-------|-------|--------------|-------|-------|-----------|-------|-------|---------|-------|-------|
| Red        | Amber | Green | Red          | Amber | Green | Red       | Amber | Green | Red     | Amber | Green |
| 1          | 6     | 23    |              | 7     | 15    |           | 2     | 18    |         |       | 5     |





## Highlights for Quarter 3

### AMR Awareness Sessions for Key Stage 3 & 4 (11-19 years)

The IPC team are currently developing AMR awareness sessions the main aim of the session is to raise awareness of AMR and how it occurs. The Public Health in Lancashire Van is also booked for members of the team to raise awareness of AMR with the general public.

### Audits

The IPC team will be auditing maintained nurseries in Lancashire and BwD in Q3.

### AMR Forum

This forum is due to take place in Q3 and will focus on AMR coinciding with World Antimicrobial Week (WAAW) in November.

### Carer groups hydration sessions

Establishing links with informal carer groups for the hydration heroes session to be delivered.

### Domiciliary care forum

The team are planning on running an IPC forum aimed specifically at domiciliary care workers following feedback from previous forums.

### LCC IPC Conference 2023

The IPC Team have planned the conference and all tickets have been sold. We have confirmed sales representatives and speakers secured, including Professor Munavvar from Lancashire Teaching Hospital, Stuart Lee from North West Ambulance Service and Polly Weston from University Hospital of Morecambe Bay Trust. The team are also running a selection of workshops in the afternoon.

### Infection Prevention Society (IPS) National Conference

The team are presenting 2 posters at the IPS National Conference in October 2023 in Liverpool. The posters detail work around the Scabies Booklet the team produced to assist care settings in outbreak and the Hydration Heroes work targeting day services contributing to the reduction in E.coli infections and Urinary Tract Infections.

### Conclusion

The report has highlighted good practice in relation to the Hydration Heroes work undertake and being selected to present at a National Conference and the targeted work to support care settings in outbreaks of scabies.

Acute Trust have developed action plans to reduce infections that have seen an increase from an acute perspective and the action plan presented at their Infection Prevention and Control Committee Meetings for oversight and scrutiny.

The IPC Team will continue to support stakeholders and partners whilst working towards the three priorities outlined at the start of this report.



## Glossary - Appendix 1

### Infections under mandatory surveillance:

#### **Clostridioides difficile (CDI)**

*Clostridioides difficile*, formerly known as *Clostridium difficile*, is a spore-forming bacterium found in 3% of healthy people who are asymptomatic.

*Clostridioides difficile* infection (CDI) is the biggest cause of infectious diarrhoea in hospitalised patients and is caused by the production of toxins due to the disturbance of the normal intestinal flora, often from antibiotic treatment. Those at most risk of developing CDI includes the elderly and immunocompromised people.

Surveillance of *Clostridioides difficile* infections was introduced in 2004 for patients aged 65 years and over. This was extended to include all cases in patients aged 2 years and over in April 2007.

The NHS Standard Contract 2022/23 includes quality requirements for NHS Trusts to minimise rates of *Clostridioides difficile* infections.

#### **Gram-negative bacteria**

Gram-negative bacteria are bacteria that do not retain the crystal violet dye in the Gram stain protocol. The organisms are often resistant to many commonly used antibiotics.

The significant organisms are *Escherichia coli* (E. coli), *Klebsiella* spp., and *Pseudomonas aeruginosa*. Mandatory surveillance of *Escherichia coli* (E. coli) bloodstream infections was introduced in June 2011, following increases observed by UKHSA's voluntary surveillance and a recommendation from the Advisory Committee on Antimicrobial Prescribing, Resistance and Healthcare Associated Infection (APRHA). In April 2017, *Klebsiella* spp. and *Pseudomonas aeruginosa* bacteraemia were also added.

This mandatory surveillance supports the Government's ambition to reduce the number of Gram-negative bloodstream infections by 50% by the end of the financial year 2023 to 2024.

#### **Escherichia coli**

*Escherichia coli* cause a range of infections including urinary tract infections and bloodstream infections.

#### **Klebsiella species**

*Klebsiella* species (spp.) belong to the Enterobacteriaceae family. They are commonly found in the environment and in the human intestinal tract (where they do not normally cause disease). These species can cause a range of healthcare-associated infections, including pneumonia, bloodstream infections, wound or surgical site infections and meningitis.

#### **Pseudomonas aeruginosa**

*Pseudomonas aeruginosa* (P. aeruginosa) is often found in soil and ground water. It causes a wide range of infection in those with a weakened immune system, such as, those with cancer and diabetes. In hospitals, the organism can contaminate devices that are left inside the body, such as respiratory equipment and catheters. It is sometimes associated with contaminated water.

#### **Staphylococcus aureus**

*Staphylococcus aureus* (S. aureus) is a bacterium that commonly colonises human skin and mucosa without causing any problems. If the bacteria have an opportunity to enter the body (medical device/broken skin) they can cause disease such as skin and wound infections, joint infections, pneumonia and blood stream infections.



Most strains of *S. aureus* are sensitive to the more commonly used antibiotics, and infections can be effectively treated. There are two types of *S. aureus* strains:

- **Meticillin susceptible *Staphylococcus aureus*** (MSSA) is a strain of *Staphylococcus aureus* that is sensitive to the antibiotic methicillin.
- **Meticillin resistant *Staphylococcus aureus*** (MRSA) is a strain of *Staphylococcus aureus* that is resistant to the antibiotic methicillin. MRSA infections often require different types of antibiotics to treat them.

There is a zero tolerance for MRSA bloodstream infections. There was a considerable decrease in the rate of reported MRSA blood stream infections following the introduction of mandatory surveillance in April 2007 until 2014. The rate has remained stable since then.

MRSA and MSSA only differ in their degree of antibiotic resistance: other than that, there is no real difference between them.

#### Terms:

|                   |                                                                                                                                                                                                                                           |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BSI</b>        | Blood stream infection/bacteraemia is an invasion of the bloodstream by bacteria. This may occur through a wound or infection, or through a surgical procedure or injection.                                                              |
| <b>COCA</b>       | Community-onset, community associated.                                                                                                                                                                                                    |
| <b>COHA</b>       | Community-onset, healthcare associated.                                                                                                                                                                                                   |
| <b>COIA</b>       | Community-onset, indeterminate association.                                                                                                                                                                                               |
| <b>DCS</b>        | Data Capture System. Web-based system where patient-level mandatory surveillance data is collected.                                                                                                                                       |
| <b>HCAI</b>       | Healthcare associated infections.                                                                                                                                                                                                         |
| <b>HOCA</b>       | Hospital-onset, community acquired.                                                                                                                                                                                                       |
| <b>HOHA</b>       | Hospital-onset, healthcare acquired.                                                                                                                                                                                                      |
| <b>PIR</b>        | Post Infection Review. The aim of the PIR process is to help identify any critical points and contributory factors leading to certain infections or outbreaks.                                                                            |
| <b>Trajectory</b> | Trusts are required under the NHS Standard Contract 2022/23 to minimise rates of both CDI and of Gram-negative bloodstream infections. Each NHS Trust and former CCG have their own trajectory. For CDI infections this is referred to as |



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