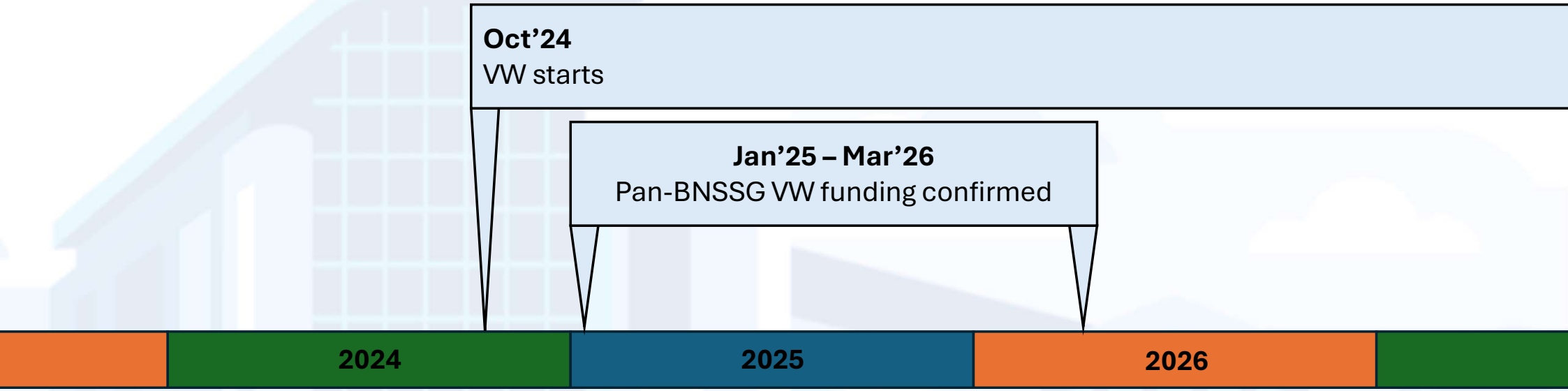
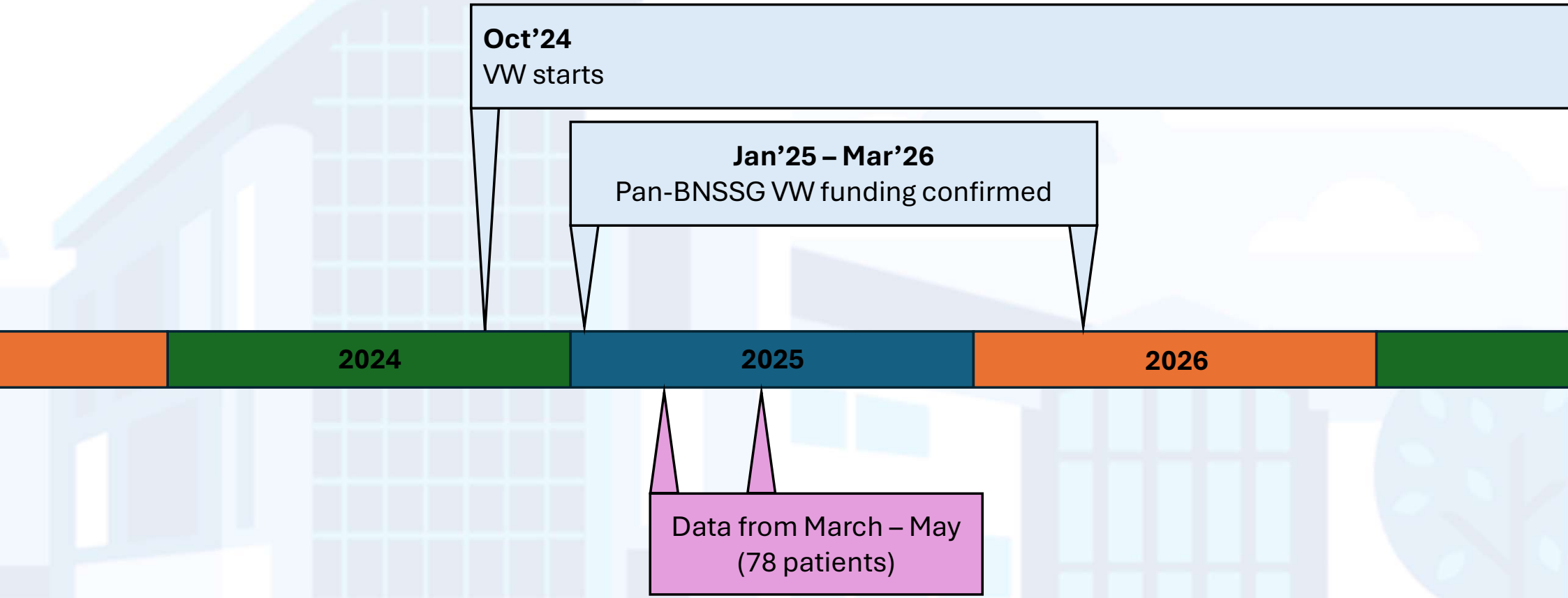
Infectious Diseases Virtual Ward NBT + UHBW

Dr Morgan Rayner-Philipson (SpR in infection)
Dr Shuchita Soni (consultant in infection)
Dr Ed Moran (consultant in infection)
Lucinda Saunders (NBT clinical operational lead for NHS @ home)
Jen Pollock (UHBW clinical operational lead for NHS @ home)
Lisa Prestidge
NHS @ home teams at UHBW / NBT

Timeline of VW implementation



Timeline of VW implementation



Virtual Ward

NHS North Bristol NHS Trust

- Observations
- Blood tests
- Wound care
- Medical photography
- Oral and intravenous antibiotics
- Facilitating imaging
- Welfare calls
- Telephone consultations
- Reviewing and actioning microbiology results

North Bristol NHS Trust

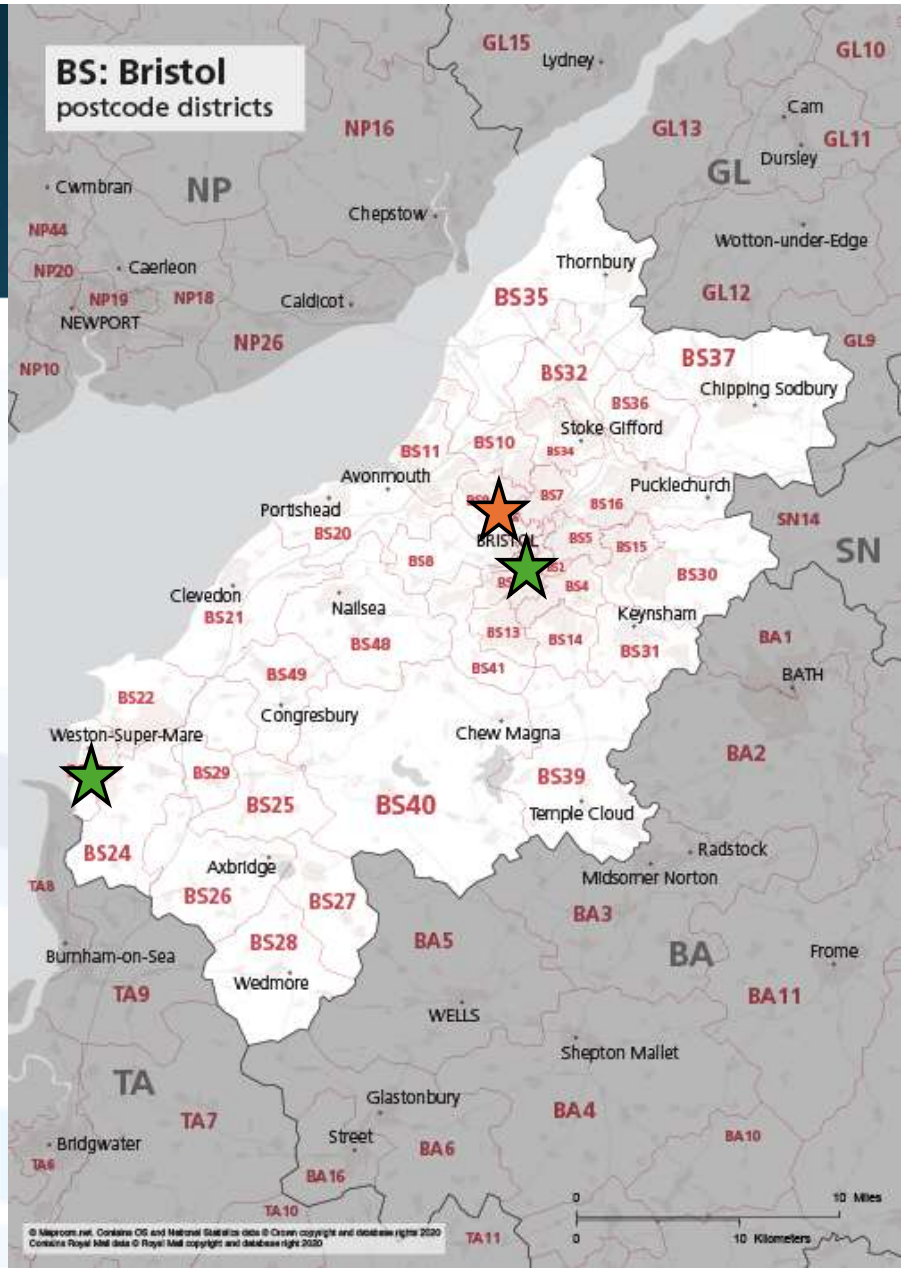
NHS @ Home service capacity

Specialty	Maximum capacity
Respiratory	40
Frailty	40
Heart failure	10
General	25
OPAT	25
Infectious Diseases	25

Patient Locations

Mar/Apr/May 2025 data (total = 78 patients)

NHS North Bristol NHS Trust



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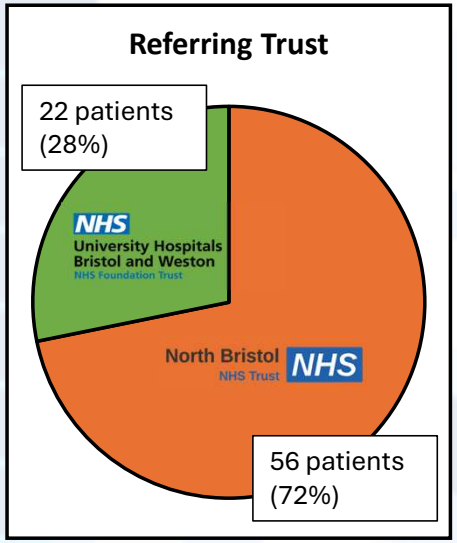

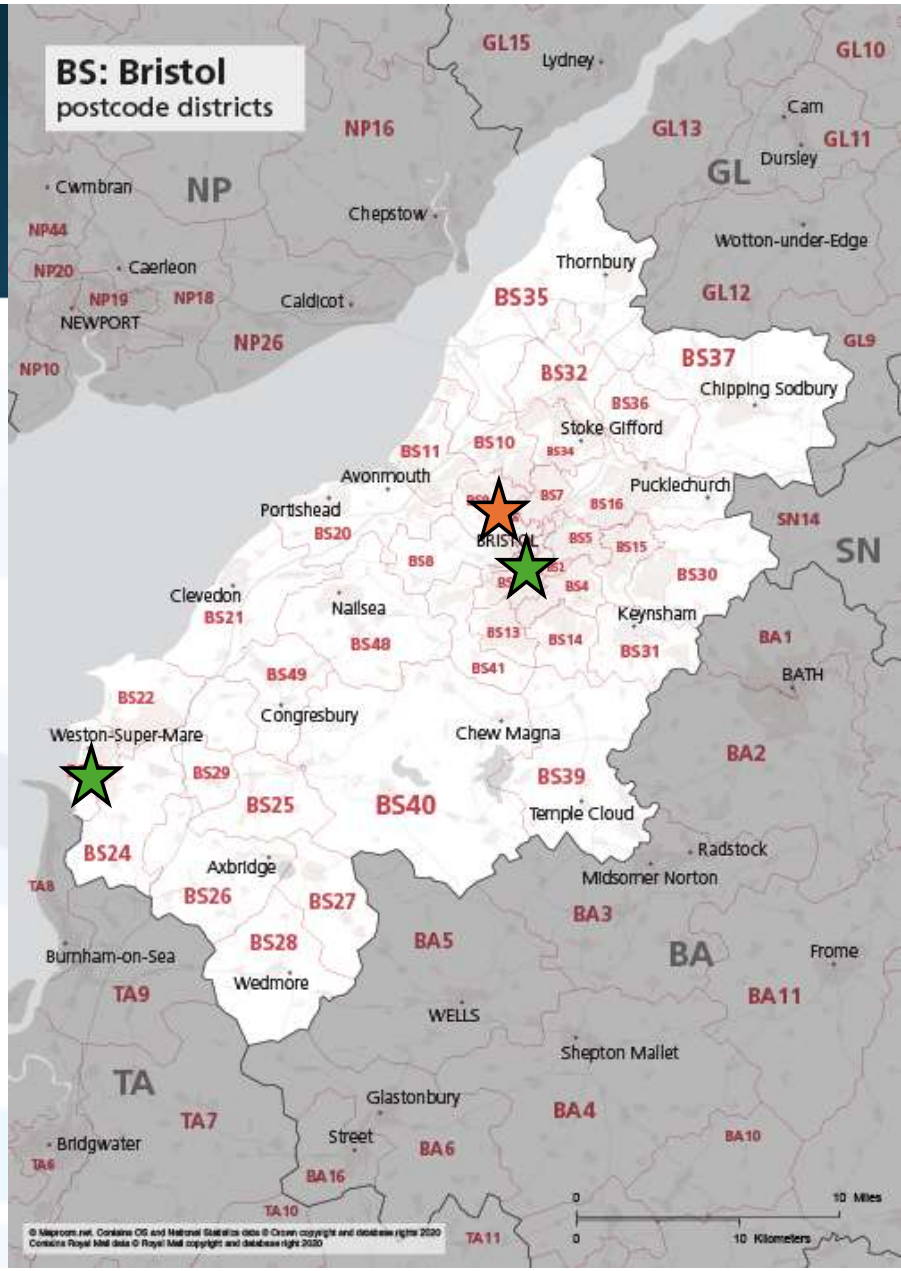

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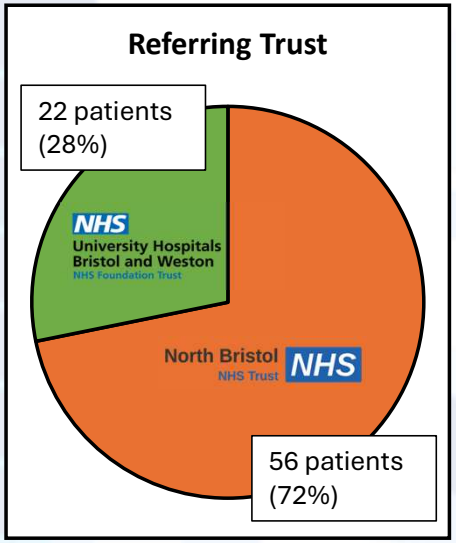

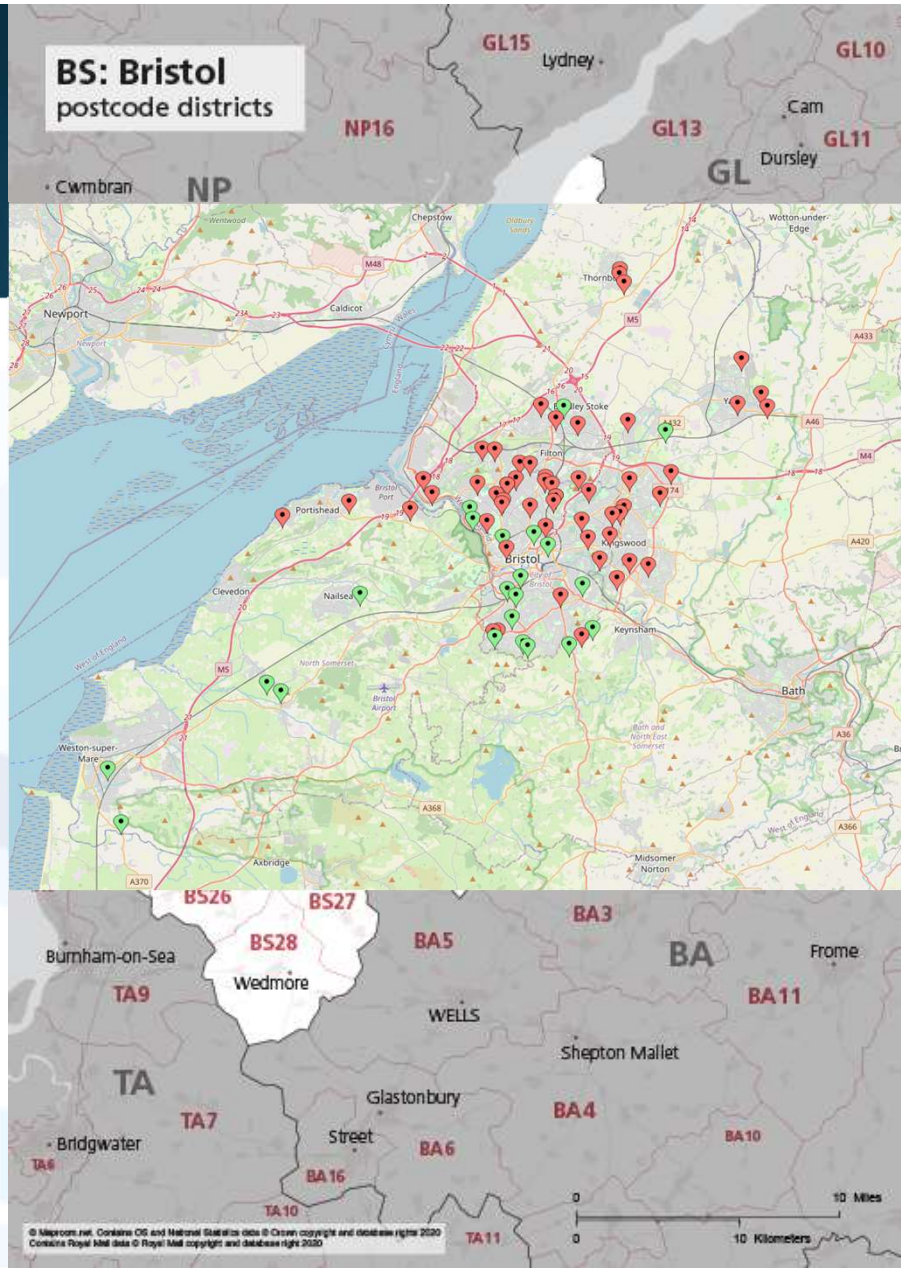

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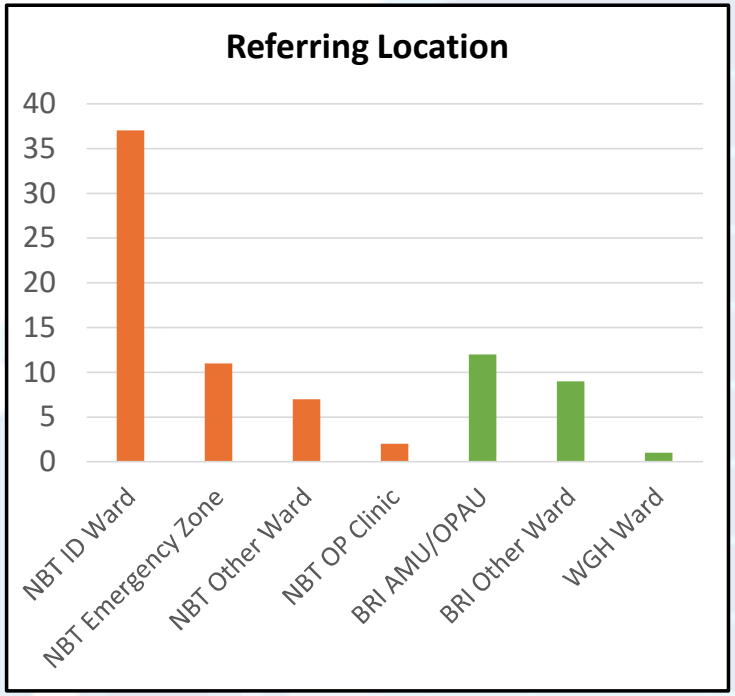
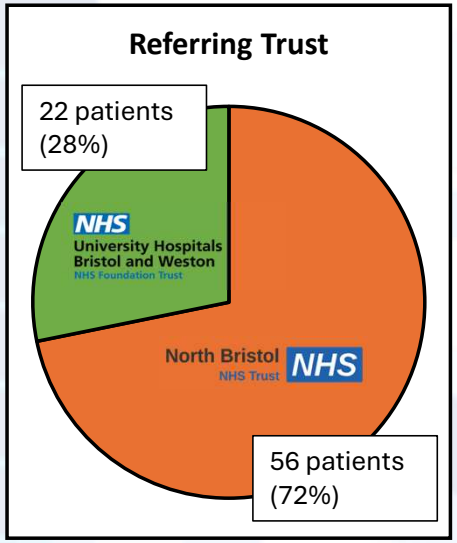
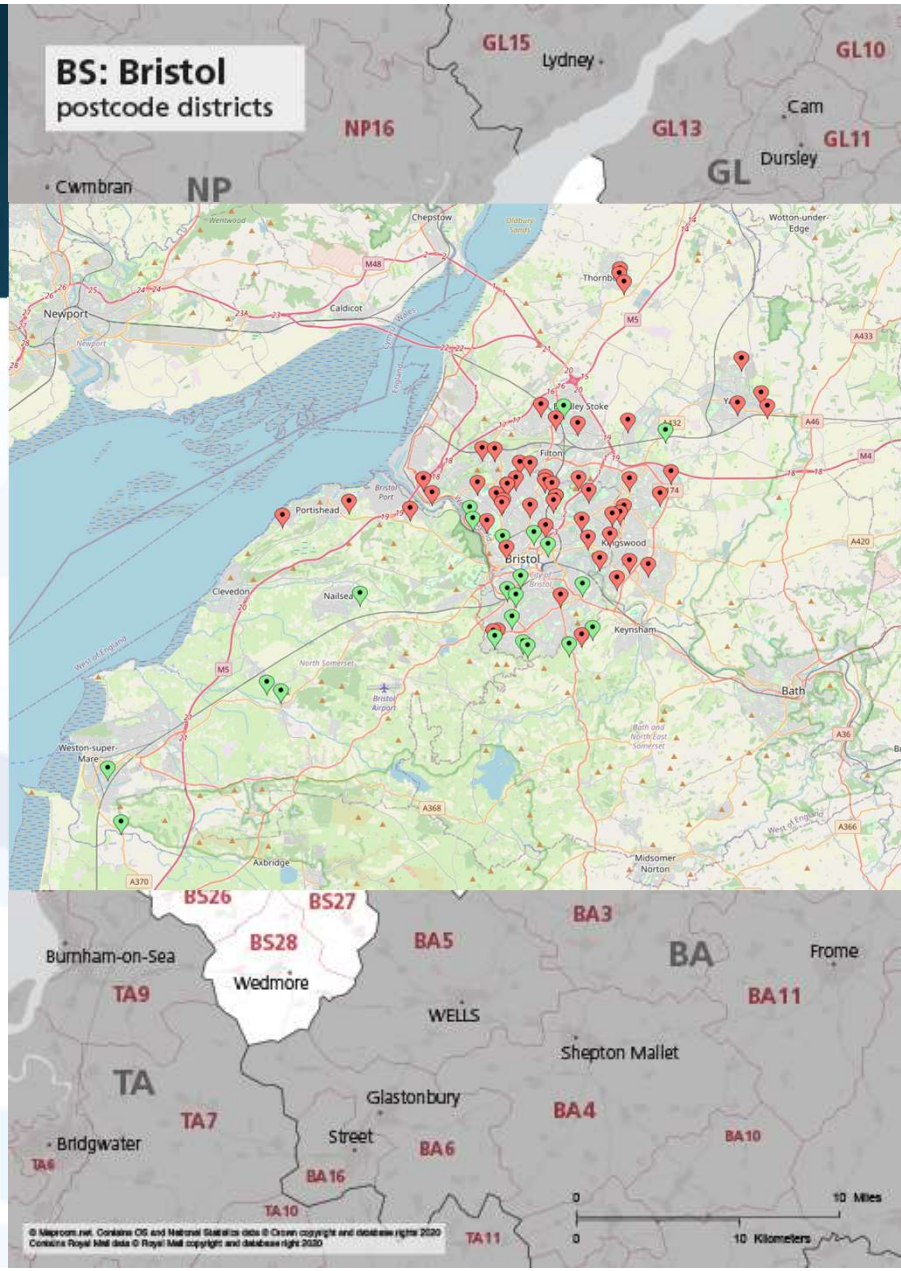
NHS North Bristol NHS Trust

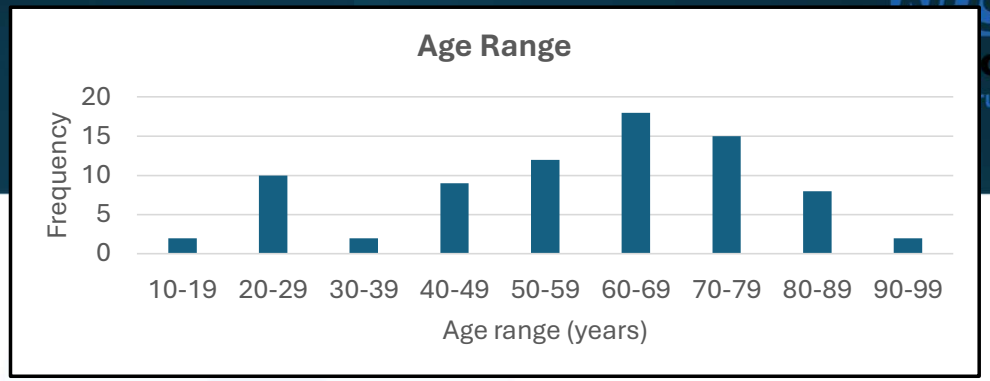






Demographics

Mar/Apr/May 2025 data (total = 78 patients)



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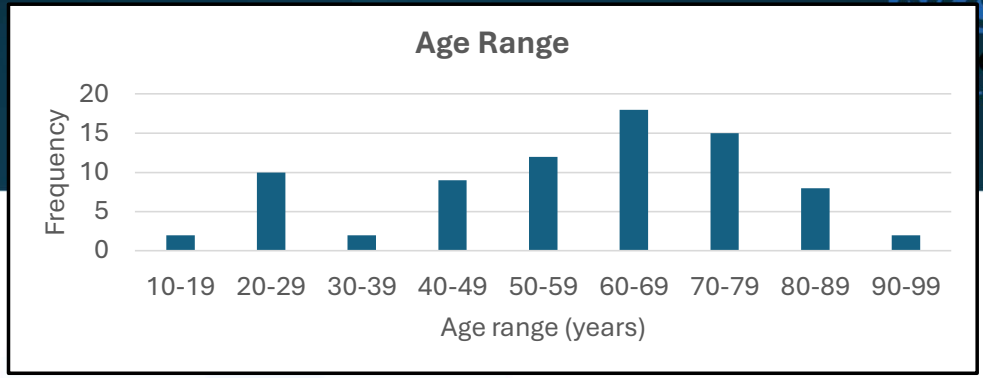
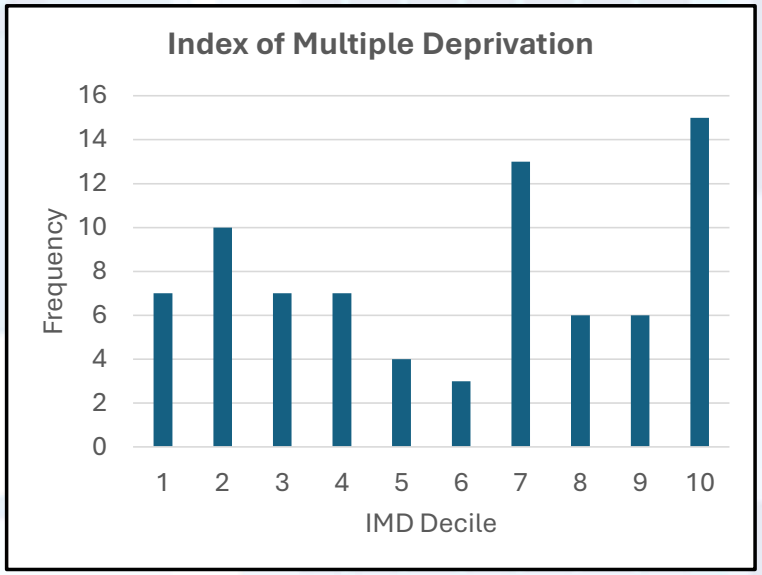
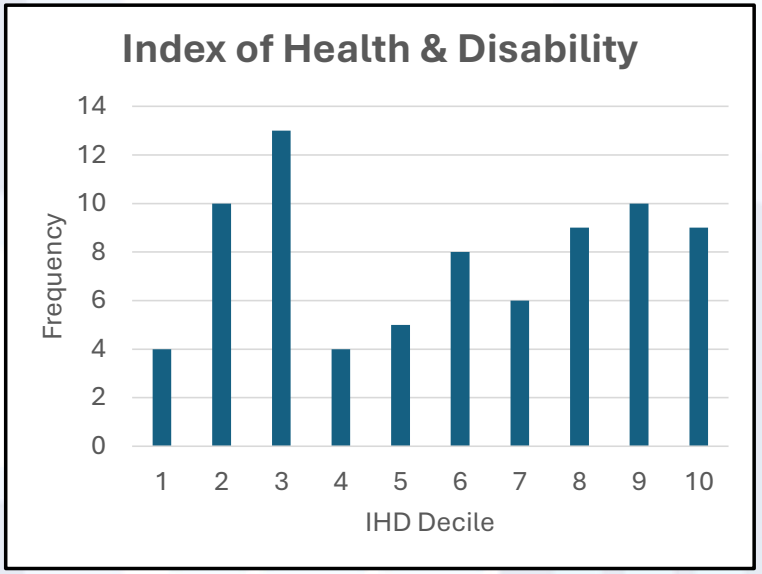


Weighted total of: • Income Deprivation (22.5%) • Employment Deprivation (22.5%) • Education, Skills and Training Deprivation (13.5%) • Health Deprivation and Disability (13.5%) • Crime (9.3%) • Barriers to Housing and Services (9.3%) • Living Environment Deprivation (9.3%).

1 = Most deprived
10 = Least deprived



1 = Worst health
10 = Best health



Source: Ministry of Housing, Communities & Local Government (English indices of deprivation 2019: Postcode Lookup)

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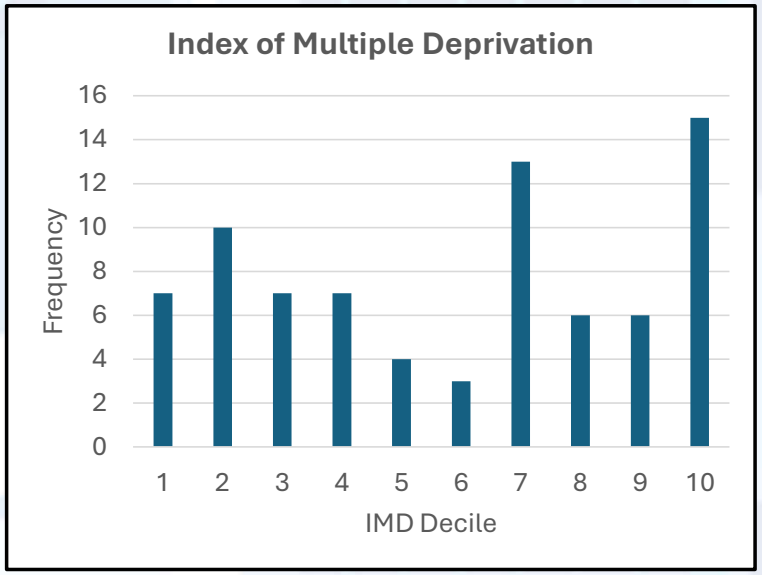

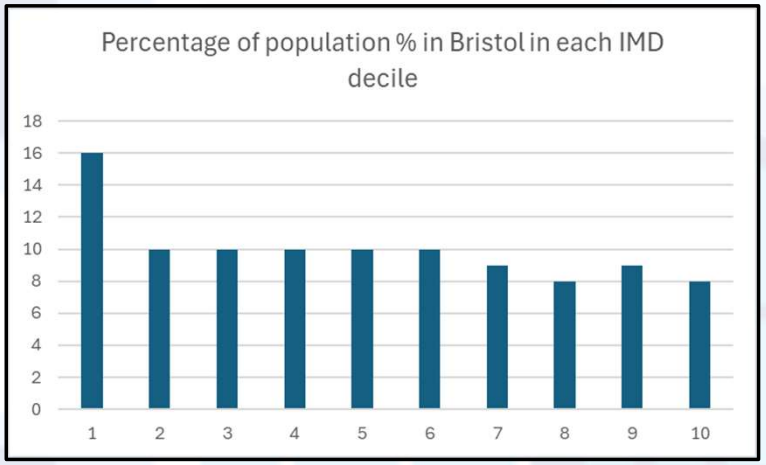

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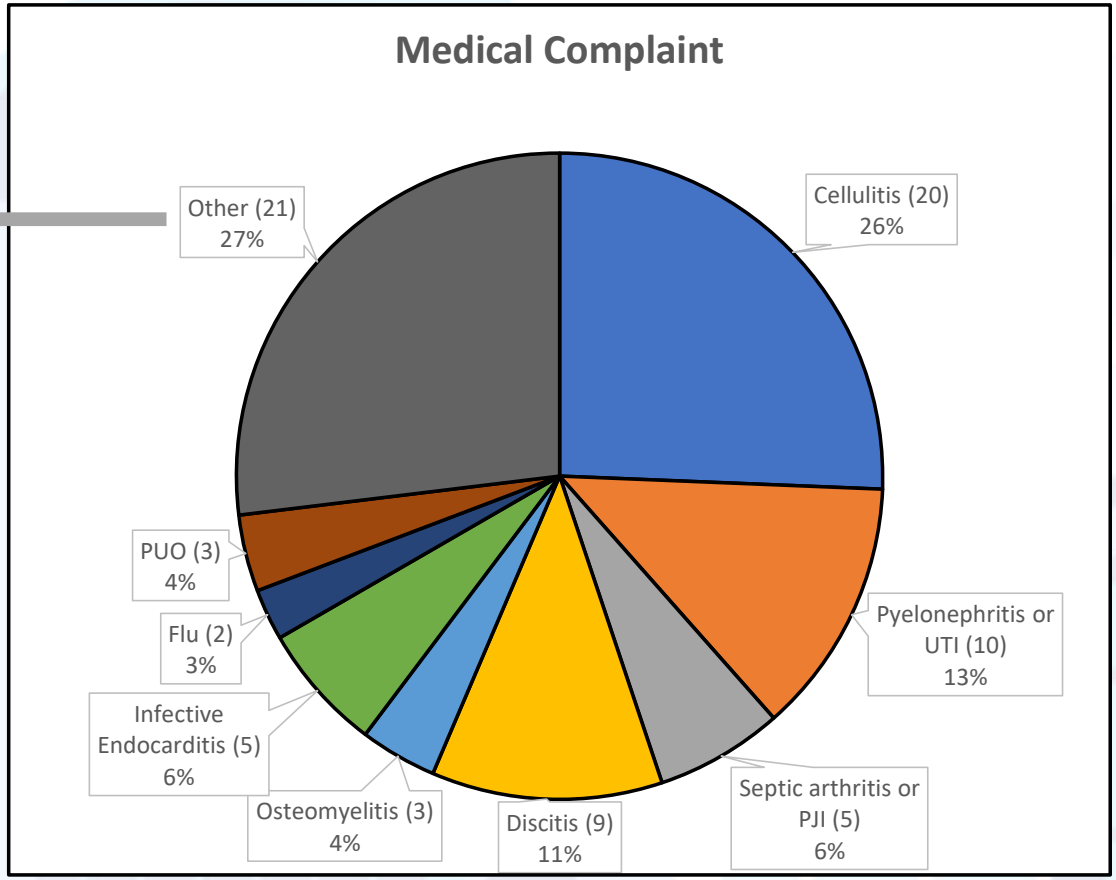
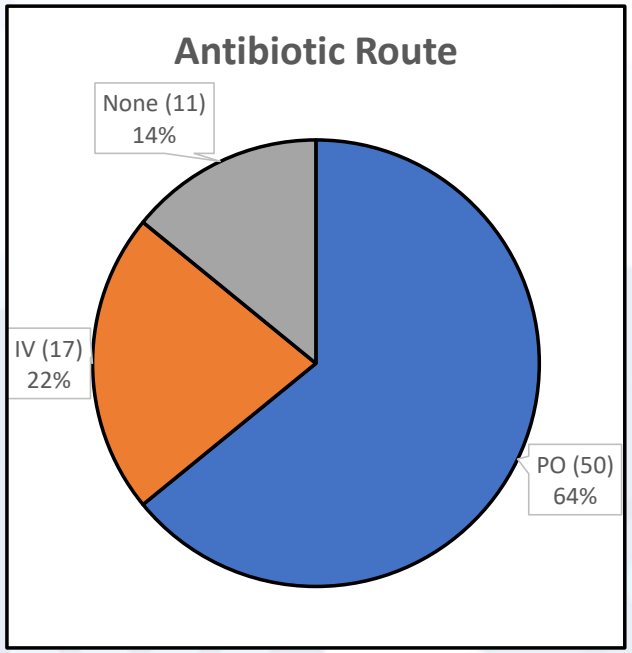
Medical Complaint

Mar/Apr/May 2025 data (total = 78 patients)

Fever in returning traveller
Empyema
Soft tissue infection
Acute CMV
Multisystem inflammatory disease
Tonsillitis
Otitis media
Invasive salmonellosis
Gut translocation in palliative patient
Aortic graft infection
Upper GI cancer and lung abscess
MSSA bacteraemia
Meningitis
Bronchiectasis
Accidental Paracetamol overdose
Elevated CRP and sternal collection
Liver Abscess
Syphilis
Bacteremia and AKI
Salmonella typhi bacteraemia
Complex uro-colic infection



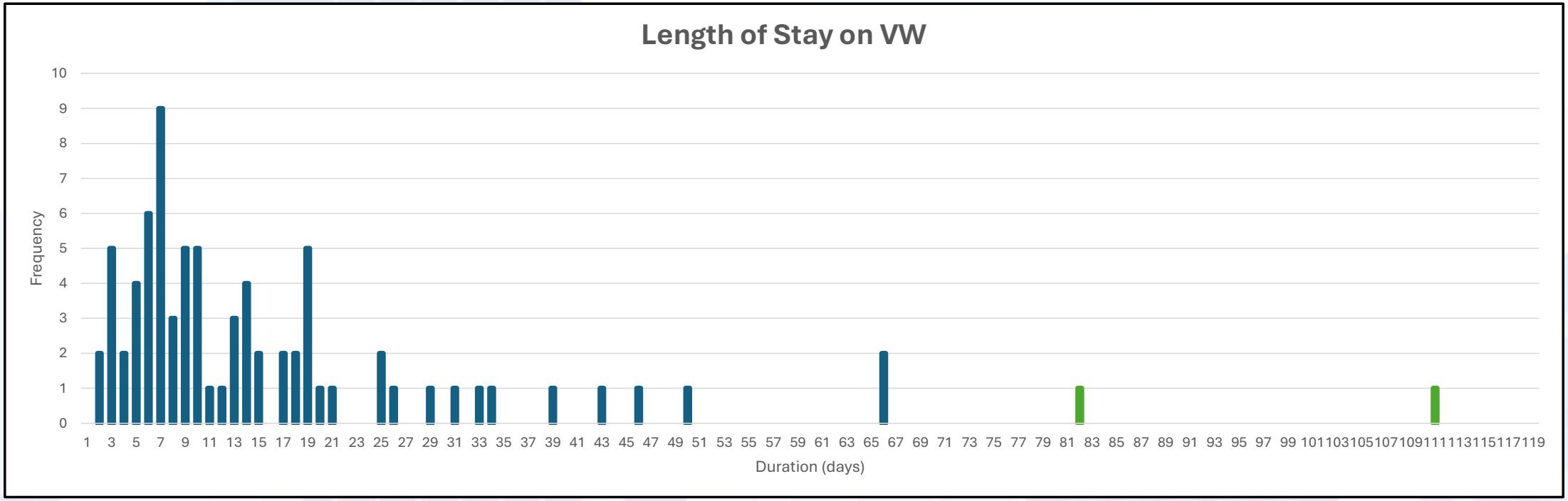


Length of Stay

Mar/Apr/May 2025 data (total = 78 patients)

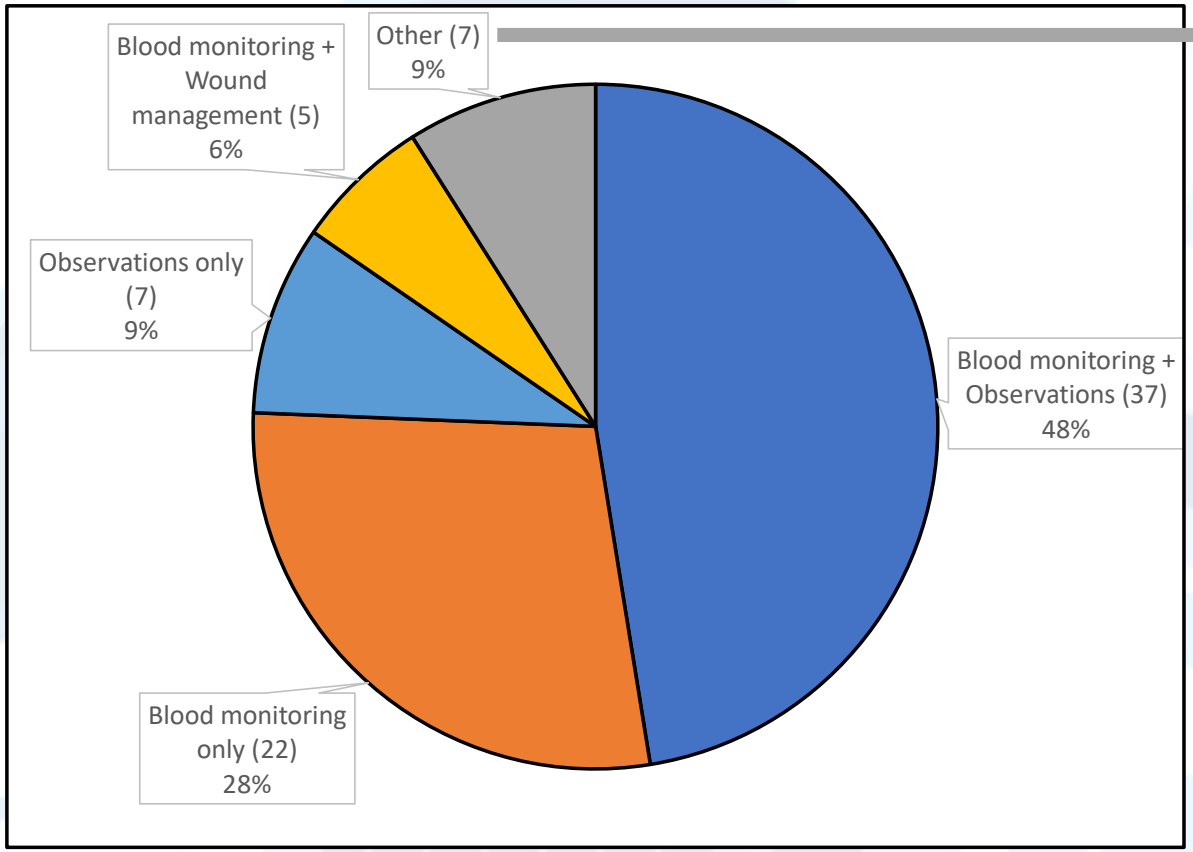
NHS North Bristol NHS Trust

Mean = 18.4 days
Median = 10 days



Actions

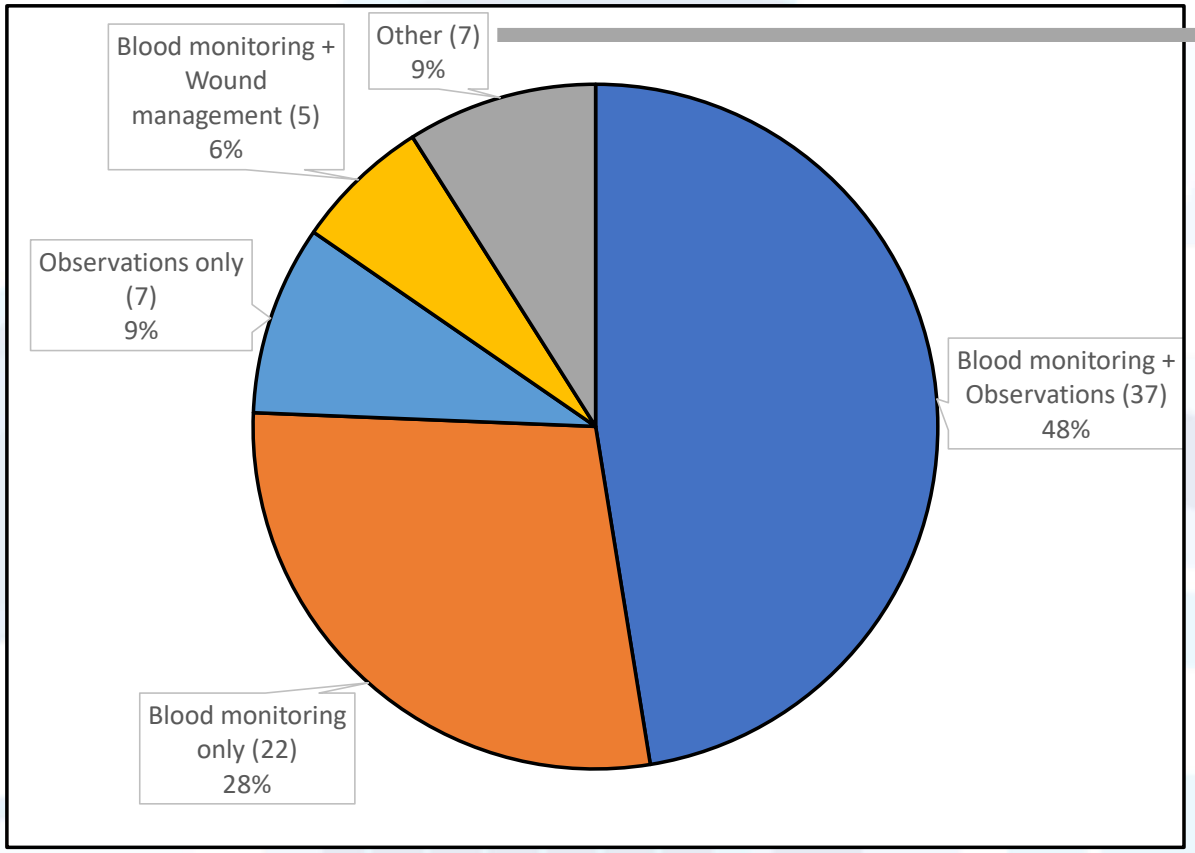
Mar/Apr/May 2025 data (total = 78 patients)



- Blood monitoring + photos
- Blood monitoring + medication support
- Blood monitoring + radiology
- Blood monitoring + radiology
- Blood monitoring + nephrostomy care
- Observations + wound management
- Medication support

Actions

Mar/Apr/May 2025 data (total = 78 patients)



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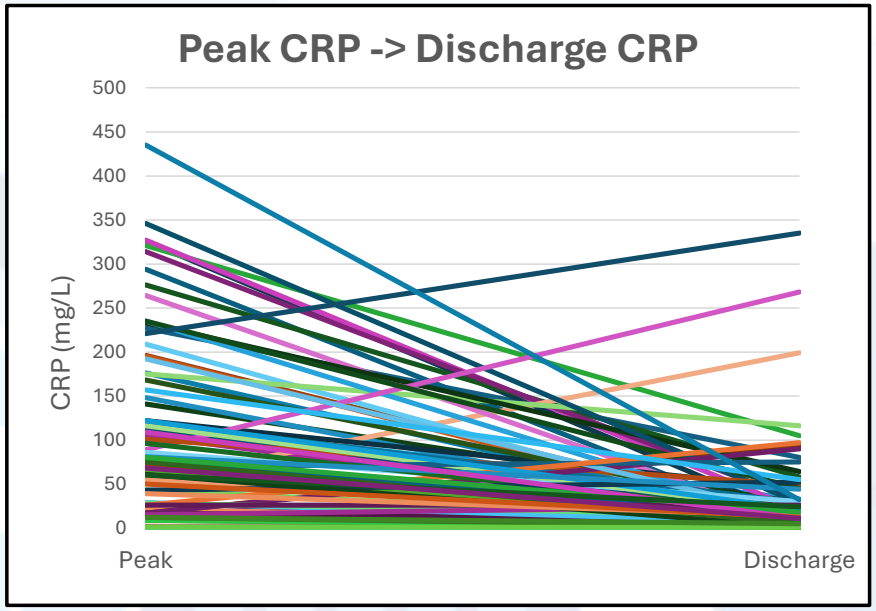

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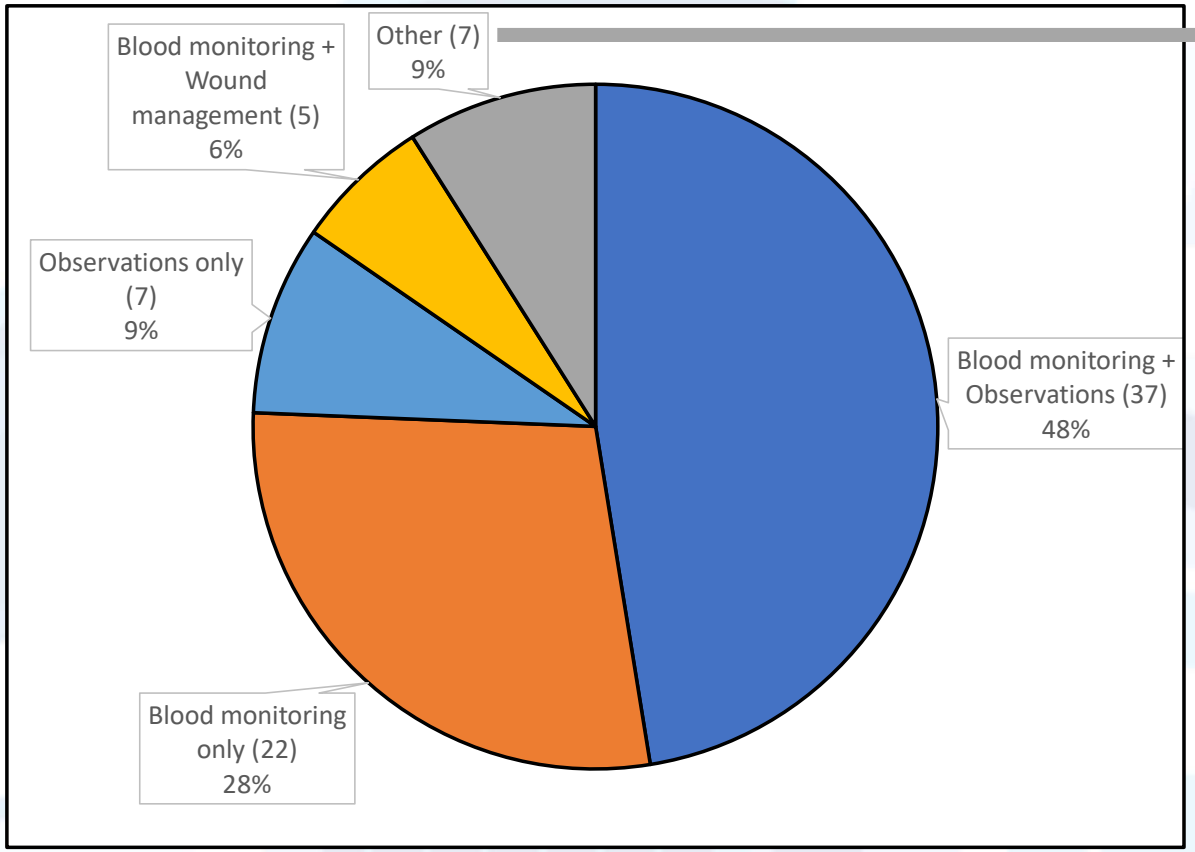

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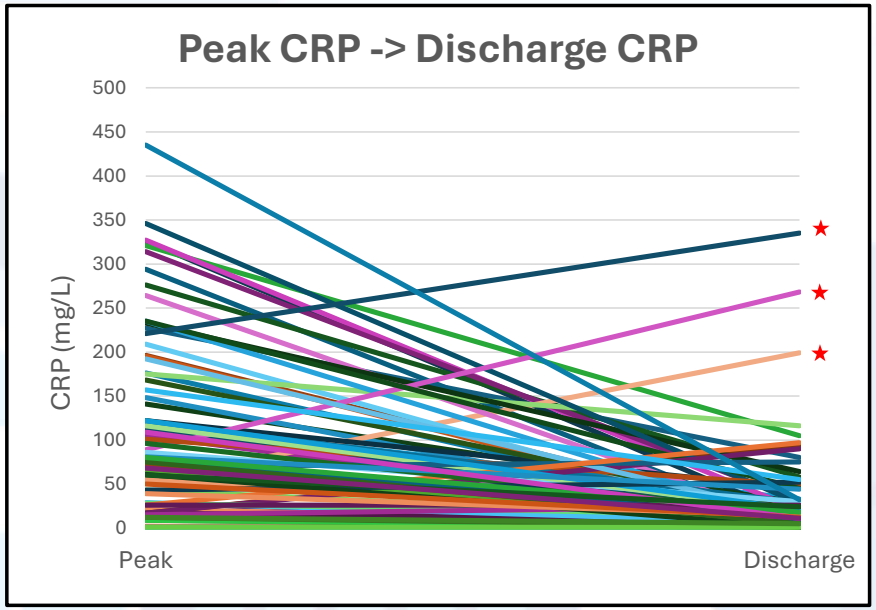
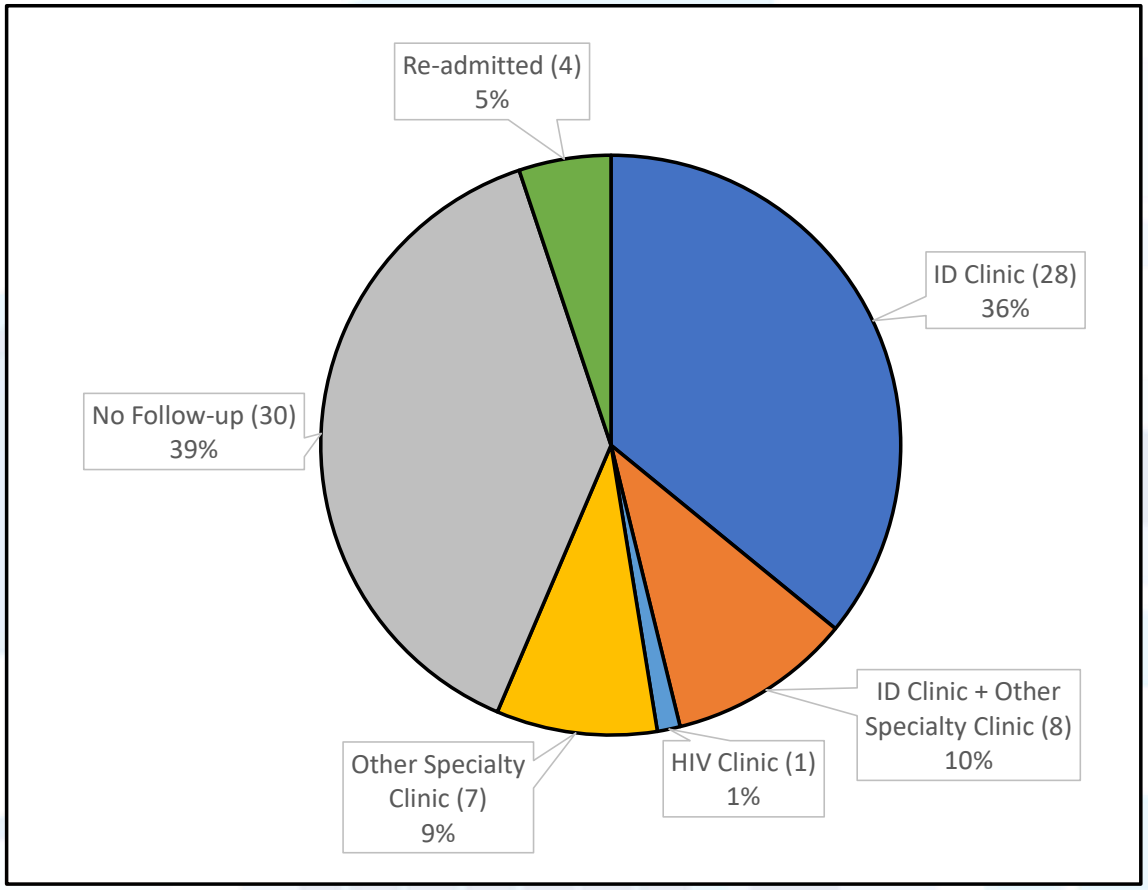


Follow-up Clinic Specialty

Mar/Apr/May 2025 data (total = 78 patients)



ID Clinic + Other Specialty Clinic (8):
Renal x2
Gastroenterology and urology
Cardiology
Trauma & Orthopaedics x2
Gastroentrology
Breast care team

Other Specialty Clinic (7):
Rheumatology x2
General surgery
Neurology
Haematology
Respiratory
With GP

Bed Days Saved

Mar/Apr/May 2025 data (total = 78 patients)

NHS North Bristol NHS Trust

- **Number of days of patients on VW:** 1463 days

Mean = 18.4 days
Median = 10 days

Bed Days Saved

Mar/Apr/May 2025 data (total = 78 patients)

NHS North Bristol NHS Trust

- **Number of days of patients on VW:** 1463 days

Mean = 18.4 days
Median = 10 days

- **Real (estimated) bed days saved:** 981 days
  - Average length of stay in hospital with:

    Pyelonephritis: 4.3 days [1]

    Cellulitis: 3-7 days [2]

    Discitis: 16-24 days [3]

    Septic arthritis: 14 days [4]

Bed Days Saved

Mar/Apr/May 2025 data (total = 78 patients)

North Bristol NHS Trust

- **Number of days of patients on VW:** 1463 days

Mean = 18.4 days
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Cost of inpatient bed for 1 night: £360 (based on £343 in 2023) [5]

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£353,160 over 3 months

Bed Days Saved

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    - Discitis: 16-24 days [3]
    - Septic arthritis: 14 days [4]

£353,160 over 3 months

£191,295 over 3 months

Average cost of 1 day with NHS @ home: £195 (based on £187 in 2023) [6]

Bed Days Saved

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North Bristol NHS Trust

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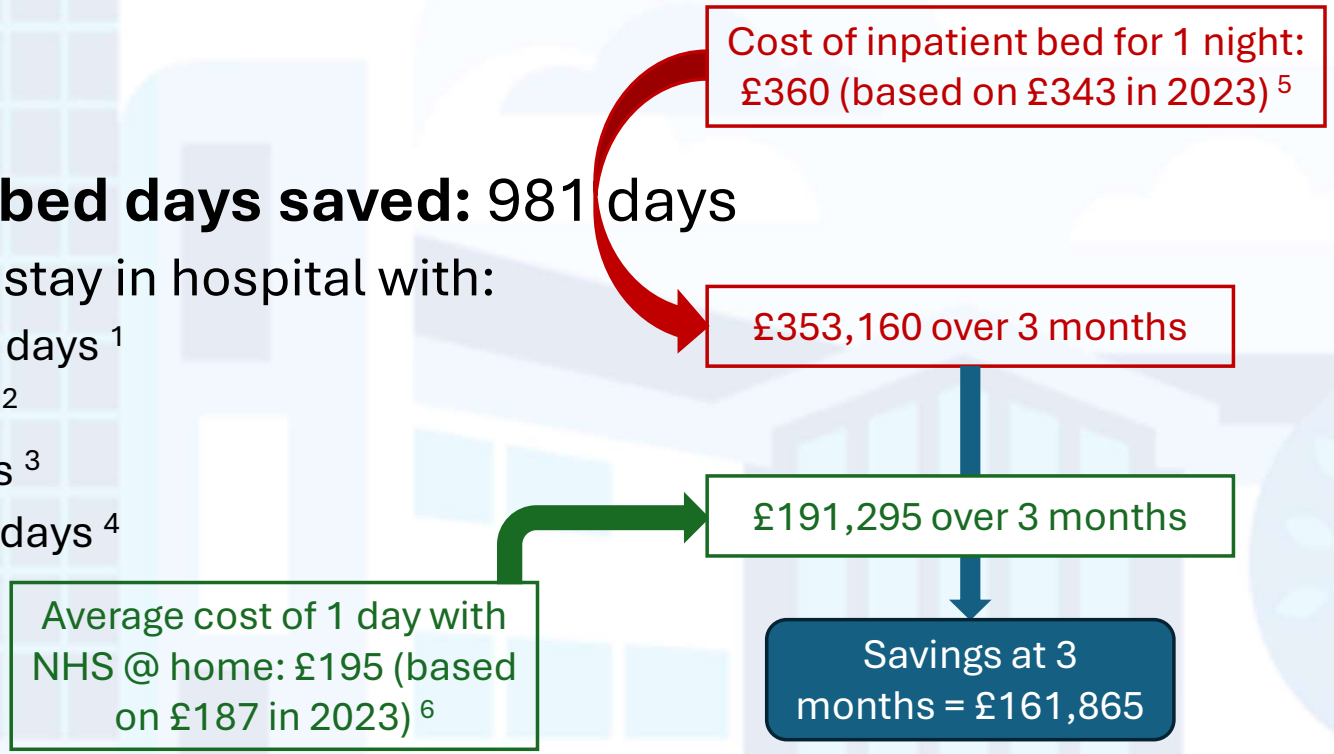

Case Reports

From Mar/Apr/May 2025

NHS North Bristol NHS Trust

68M with fever after travelling to Asia

Low platelets

Ref lab tests pending

Home under VW with real-time investigation and monitoring

BM biopsy

Fast-tracked to BHOC

Case Reports

From Mar/Apr/May 2025

NHS North Bristol NHS Trust

68M with fever after travelling to Asia

Ho *ion*

VW benefits:

- Fast discharge
- High standard of care
- Rapid involvement of other specialties

Case Reports

From Mar/Apr/May 2025

NHS North Bristol NHS Trust

68M with fever after travelling to Asia

VW benefits:

- Fast discharge
- High standard of care
- Rapid involvement of other specialties

Ho ion

57F with metastatic colon cancer

Recurrent sepsis

Anxiety

Home under VW with IV antibiotics, monitoring, consultant contact

Case Reports

From Mar/Apr/May 2025

VW benefits:

- Fast discharge
- High standard of care
- Rapid involvement of other specialties

VW benefits:

- Reassurance to anxious patient
- Promotes autonomy
- Patient-initiated access to NHS@home avoids unplanned ED admissions

Case Reports

From Mar/Apr/May 2025

NHS North Bristol NHS Trust

68M with fever after travelling to Asia

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VW benefits:

- Fast discharge
- High standard of care
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Hom oring,

VW benefits:

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- Patient-initiated access to NHS@home avoids unplanned ED admissions

55M with sacral pressure sore and OM

Complex psycho-social factors

Rarely has long periods at home

Home under VW with bloods, wound care, IV antibiotics, coordination with other teams

Plastic surgery

Case Reports

From Mar/Apr/May 2025

NHS North Bristol NHS Trust

VW benefits:

- Fast discharge
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VW benefits:

- Reassurance to anxious patient
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VW benefits:

- Holistic approach in wound care
- Longest period at home in 2 years
- Significant wound improvement
- Promotes autonomy

Case Reports

From Mar/Apr/May 2025

NHS North Bristol NHS Trust

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VW benefits:

- Holistic approach in wound care
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- Significant wound improvement
- Promotes autonomy

82M with discitis

No organisms in BC

CRP 80

Home under VW with bloods, symptom and vital signs monitoring

Spinal biopsy

Rationalise antibiotics with biopsy results

Case Reports

From Mar/Apr/May 2025

NHS North Bristol NHS Trust

VW benefits:

- Fast discharge
- High standard of care
- Rapid involvement of other specialties

VW benefits:

- Reassurance to anxious patient
- Promotes autonomy
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VW benefits:

- Holistic approach in wound care
- Longest period at home in 2 years
- Significant wound improvement
- Promotes autonomy

VW benefits:

- Admission avoidance
- Optimal treatment
- No deconditioning

Reflections on the ID VW

NHS North Bristol NHS Trust

Positives

- Admission avoidance and early discharge
- Engagement from UHBW sites
- Case reports – many more
- High rates of patient satisfaction

Challenges and areas for improvement

- Weekend cover
- Electronic documentation
- BME and low IMD under-representation
- Rural populations
- Consistent referral pathways
- Promotion in BRI SDEC, for example
- Feedback and data collection

References

1)Hsu, R., Shergill, P. and VJ Gnanapragasam (2014). Factors influencing length of stay and suitability for early community discharge in the management of acute pyelonephritis. *Journal of Clinical Urology*, 8(3), pp.172–176. doi:https://doi.org/10.1177/2051415814551192.

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3) Thavarajasingam, S.G., Hariharan Subbiah Ponniah, Phillips, R., Neuhoff, J., Krämer, A., Demetriades, A.K., Ehab Shiban, Ringel, F. and Davies, B.M. (2023). Increasing incidence of spondylodiscitis in England: An analysis of the national health service (NHS) hospital episode statistics from 2012 to 2021. *Brain and Spine*, 3, pp.101733–101733. doi:https://doi.org/10.1016/j.bas.2023.101733.

4) Rutherford, A.I., Subesinghe, S., Bharucha, T., Ibrahim, F., Kleymann, A. and Galloway, J.B. (2016). A population study of the reported incidence of native joint septic arthritis in the United Kingdom between 1998 and 2013. *Rheumatology*, [online] 55(12), pp.2176–2180. doi:https://doi.org/10.1093/rheumatology/kew323.

5) UK Parliament (2023). *Written questions and answers - Written questions, answers and statements - UK Parliament*. [online] Parliament.uk. Available at: https://questions-statements.parliament.uk/written-questions/detail/2023-03-14/165361.

6) England, N. (2023). *NHS England — South East» Virtual wards in the South East treat more than 61,000 people in their own homes*. [online] England.nhs.uk. Available at: https://www.england.nhs.uk/south-east/2023/10/12/virtual-wards-in-the-south-east-treat-more-than-61000-people-in-their-own-homes/ [Accessed 21 Jul. 2025].

7) South East Region Virtual Wards Evaluation Final Report. (2024). Available at: https://ppl.org.uk/wp-content/uploads/2024/05/ANONYMISED-South-East-Region-Virtual-Wards-Evaluation-Final-version-1.3.pdf.