



# pAMS network vision - empowering district general hospitals

Charlotte Fuller

*Paediatric Registrar / BSAC AMS Scholar*

Sanjay Patel

*Consultant in Paediatric Infectious Diseases and Immunology  
Southampton Children's Hospital*

# Declarations

The educational arm of this project is co-funded by an unrestricted grant provided by GSK and in-kind funding from BSAC

# Antimicrobial use rising in hospitals



UK Health  
Security  
Agency

52.3% of children (1 to 9 years) in hospital receive antibiotics  
(UKHSA PPS, 2023)



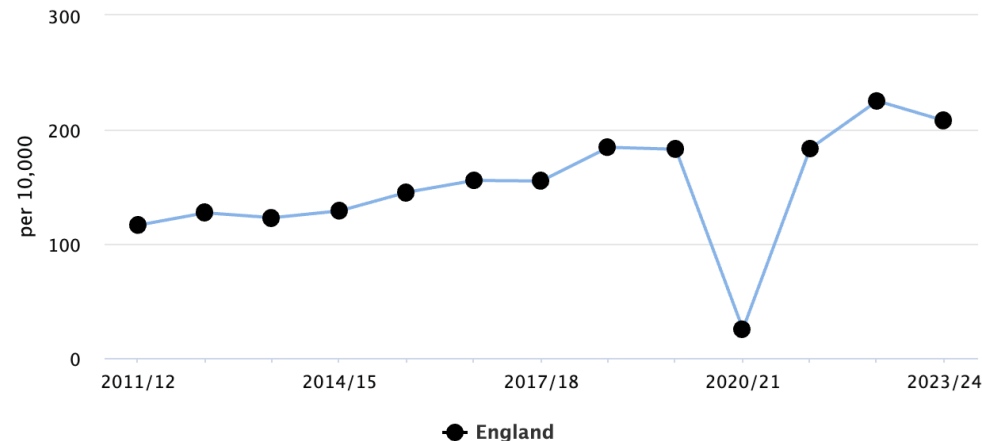
Department of  
Health & Social Care

Fingertips | Public health profiles

[Emergency admissions for lower respiratory tract infections \(0 to 4 years\)](#)

[Show confidence intervals](#)

[Show 99.8% CI values](#)

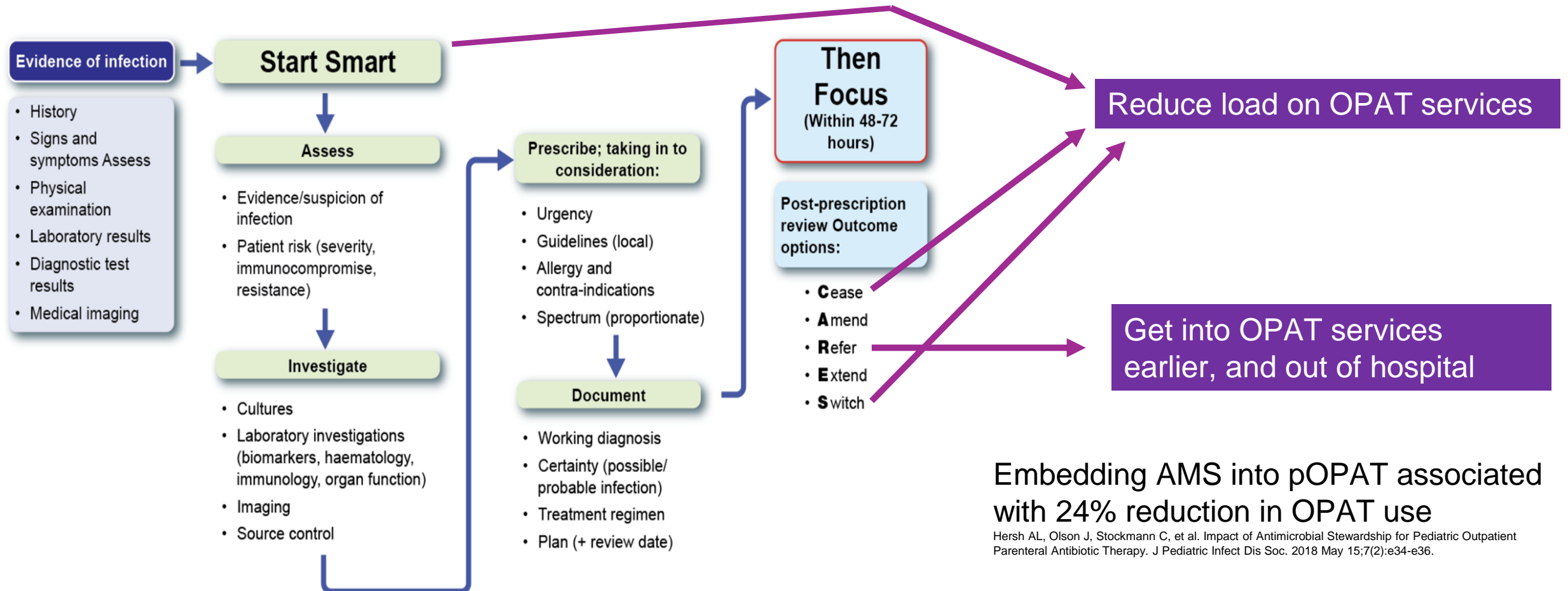


Recent trend: ↑ Increasing & getting worse

# AMS needed to support OPAT

## OPAT not indicated in 40% (US study)

Knackstedt ED, Stockmann C, Davis CR et al.. Outpatient parenteral antimicrobial therapy in pediatrics: an opportunity to expand antimicrobial stewardship. Infect Control Hosp Epidemiol. 2015 Feb;36(2):222-4..





# Barriers to pAMS

## South Yorkshire Service Evaluation

Notable difference in what is offered  
re: AMS to children compared to  
adults (inequality)

- Staff shortages in microbiologists in all DGHs
- No staff capacity to provide routine AMS team contact with ward areas (adults or paediatrics)
- Minimal paediatric representation for trust AMS committee



Short report

## Paediatric antimicrobial stewardship programmes in the UK's regional children's hospitals

S. Vergnano<sup>a,b,\*</sup>, A. Bamford<sup>c</sup>, S. Bandi<sup>d</sup>, F. Chappel<sup>e</sup>, A. Demirjian<sup>e</sup>,  
K. Doerholt<sup>f</sup>, M. Emonts<sup>g</sup>, L. Ferreras-Antolin<sup>f</sup>, A. Goenka<sup>h</sup>, L. Jones<sup>i</sup>,  
J.A. Herberg<sup>j</sup>, L. Hinds<sup>k</sup>, O. McGarrity<sup>c</sup>, P. Moriarty<sup>l</sup>, S. O'Riordan<sup>m</sup>, M. Patel<sup>n</sup>,  
S. Paulus<sup>o</sup>, D. Porter<sup>p</sup>, K. Stock<sup>q</sup>, S. Patel<sup>r</sup>

### *Funding of PAS services*

Most UK children's hospitals delivered their PAS services with little or no formal funding, using pre-existing staff. Pharmacists and microbiologists were funded as part of core Trust activity with the bulk of their work within adult services.





# Improving AMS programmes for paediatric services via a shared post working collaboratively across five hospital trusts

Fuller C <sup>1</sup>, Leavesley N <sup>1</sup>, Joslin F <sup>1</sup>, Kurain M <sup>2</sup>, Shackley F <sup>1</sup>, Hinds L <sup>1</sup>, Kerrison C <sup>1</sup>  
on behalf of the South Yorkshire Paediatric AMS Group

1. Sheffield Children's NHS Foundation Trust, Sheffield. 2. Doncaster and Bassetlaw Teaching Hospitals NHS Foundation Trust, Doncaster

South Yorkshire  
Integrated Care System



Aim to embed AMS principles and practices into the routine care of children accessing paediatric services in South Yorkshire

## Service evaluation

Benchmarking against AMS quality indicators

## Regional AMS network created

Microbiologists  
Paediatricians  
Pharmacists

- Met bi-monthly
- Co-designed regional interventions

## Guideline development

## Monitoring & Feedback

## Education Programme

## Promoting QI initiatives

South Yorkshire and Bassetlaw  
Integrated Care System

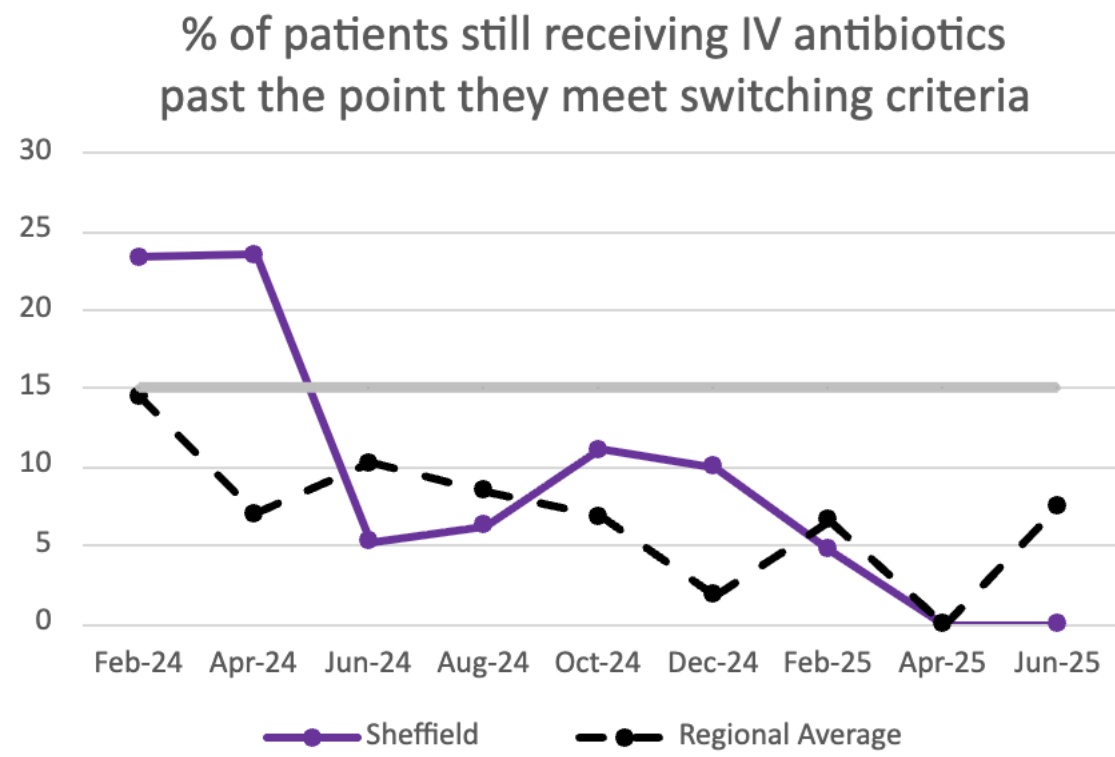




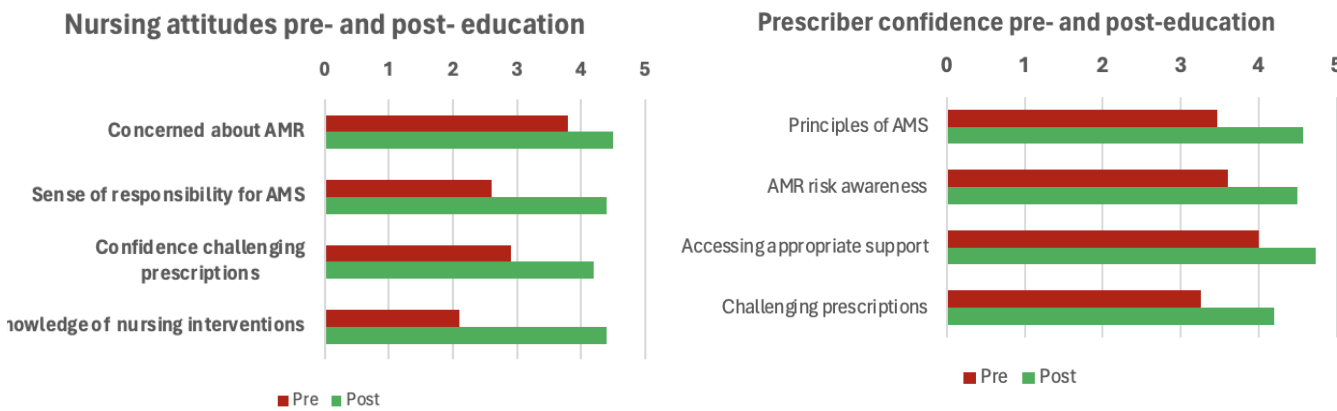
# Impact of South Yorkshire pAMS pilot network

## Quantitative (IVOS)

Inappropriate IV Abs reduced from 14.5% to 7.5% over 12 months.

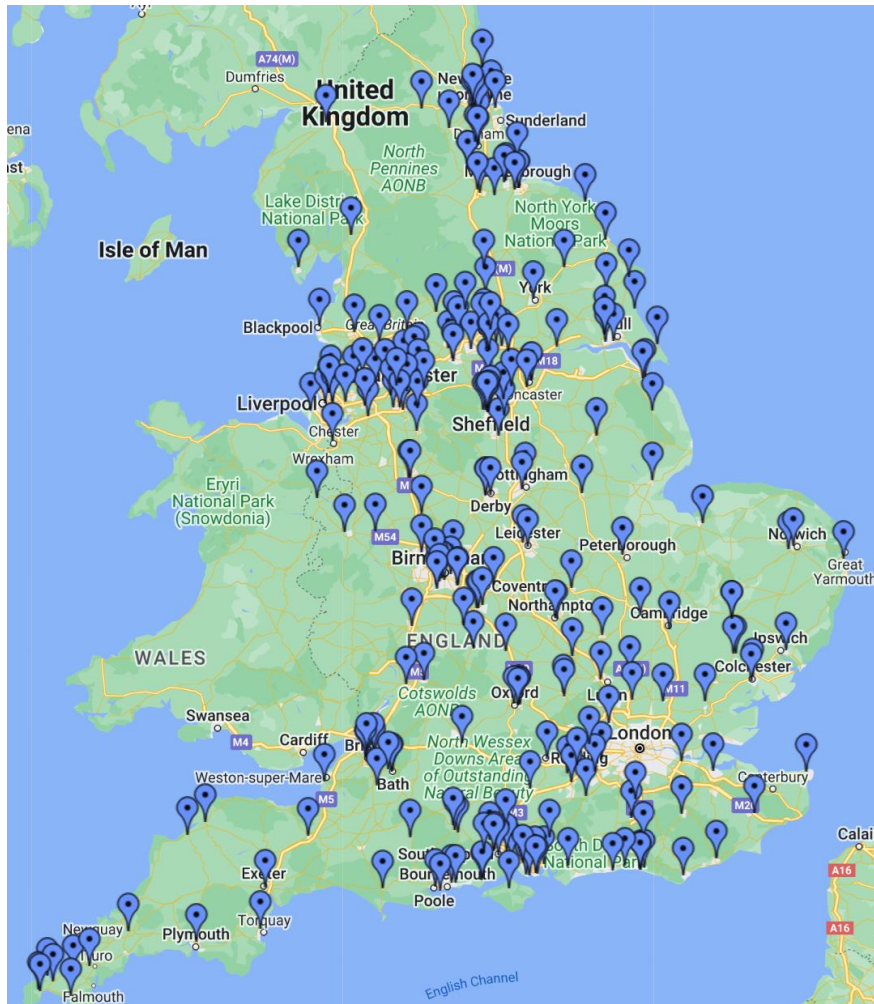


## Qualitative (confidence & quality)



Quality Indicator	December 2023	June 2025	
Indication documented	77.4%	94%	↑
Duration or review date documented	35.5%	43%	↑
Appropriate cultures prior to antibiotics	43.5%	79.7%	↑
Adherence to guidelines	87.1%	88%	↑

## Local hospitals (paediatric inpatients)



## Tertiary children's hospitals



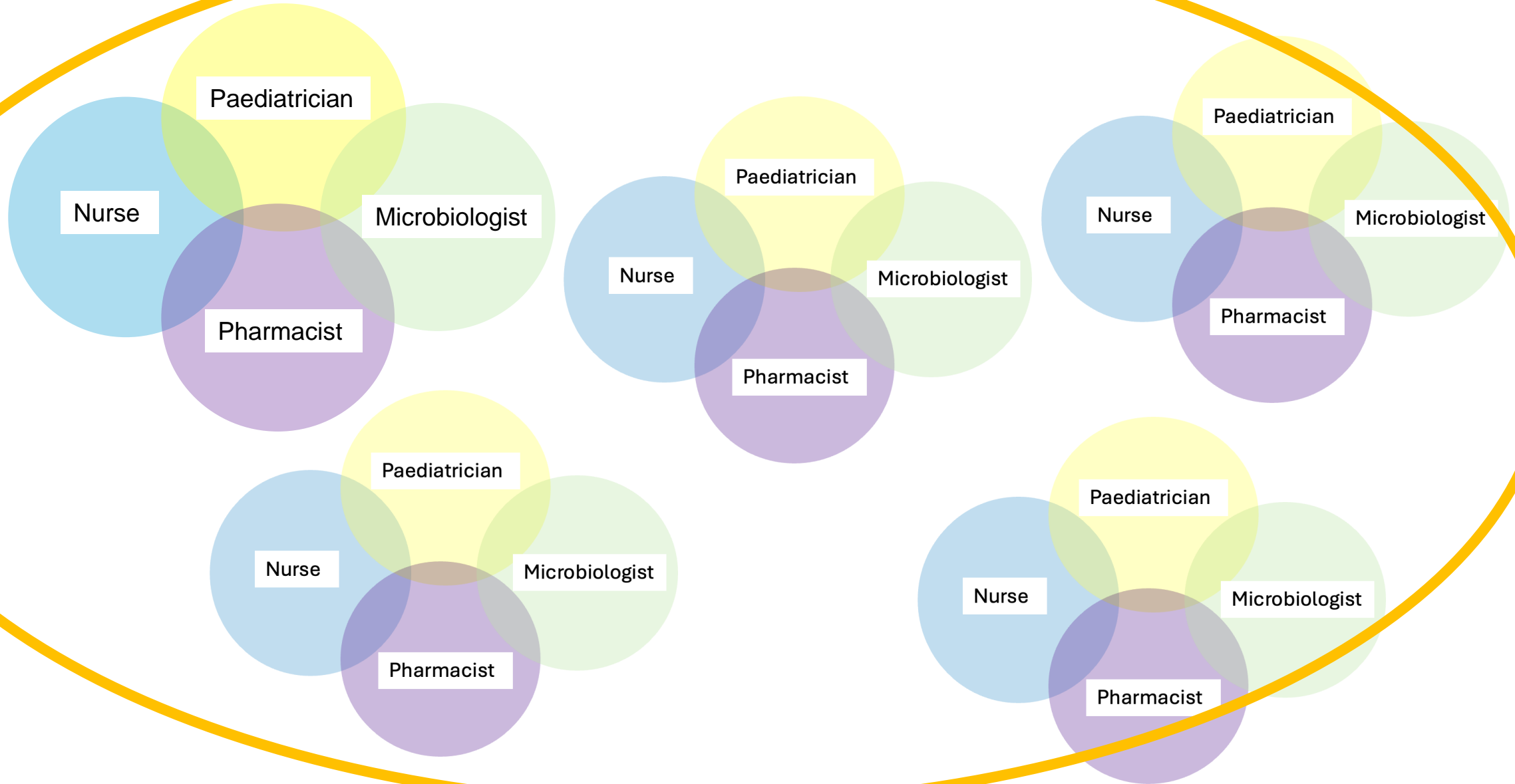
**NHSE funding**

**0.1 FTE  
Consultant (half a  
day/week)  
0.2 FTE  
Pharmacist (1  
day/week)**

**TIME LIMITED (8  
months)**

# Paediatric Infection Teams

pAMS Network



# pAMS Network



```
graph TD; subgraph pAMS_Network [pAMS Network]; direction TB; SL[Shared learning]; CS[Celebrating success]; RLB[Regional benchmarking]; RQIP[Regional QI planning]; SR[Shared resources]; COP[Community of practice]; end
```

**Shared  
learning**

**Celebrating  
success**

**Community  
of practice**

**Regional  
benchmarking**

**Shared  
resources**

**Regional QI  
planning**



# Paediatric antimicrobial stewardship (pAMS) education

**Development and delivery of paediatric antimicrobial stewardship (pAMS) education to local leaders in district general hospitals**

AMR in  
paediatrics

Bugs and Drugs  
basics

Paediatric  
antimicrobial  
prescribing

Diagnostic  
Stewardship

IPC: Paediatric  
considerations

Securing funding  
to support local  
pAMS activities

Human factors  
and behaviour  
change

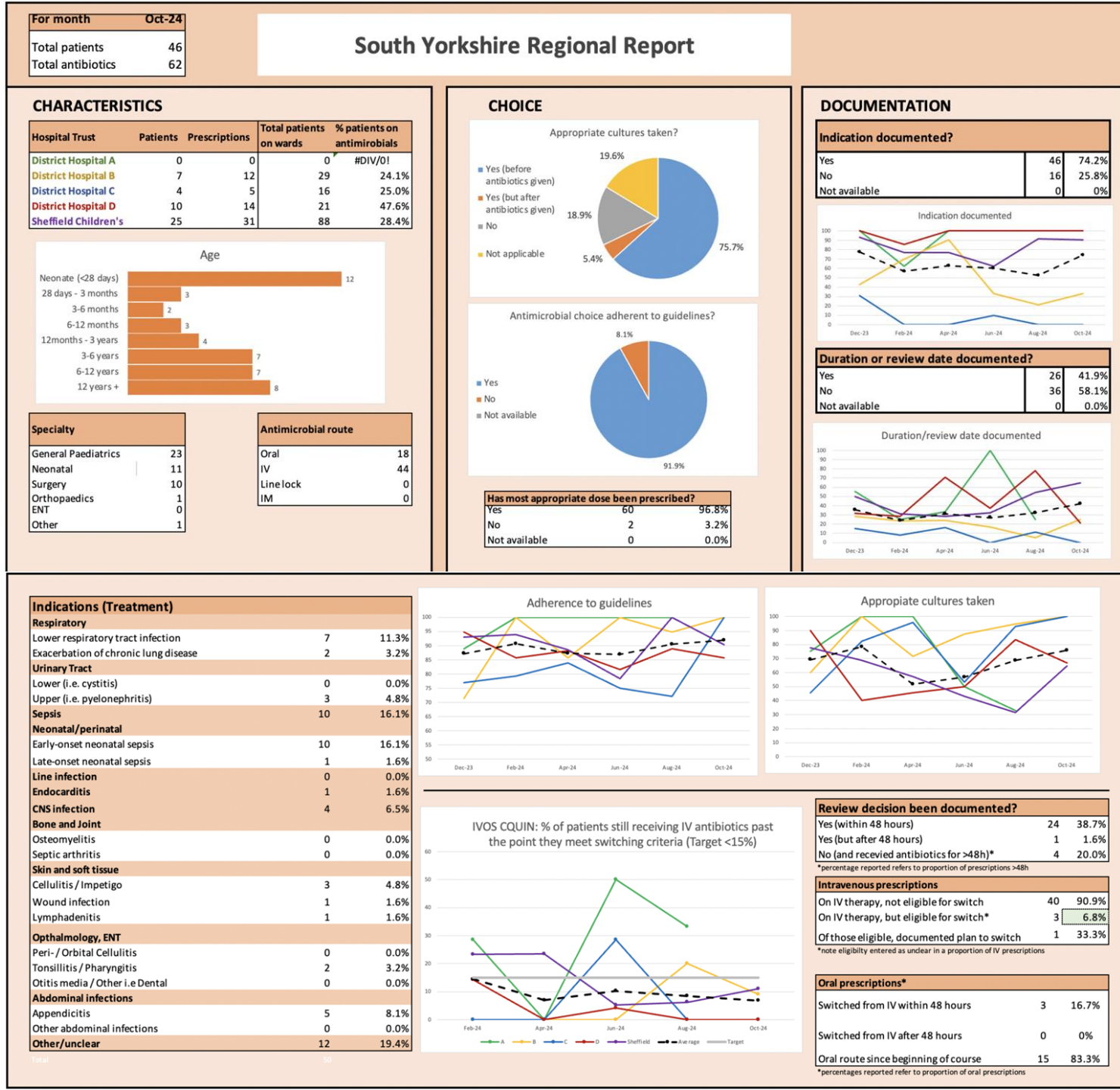
Measurement  
and feedback

Guidelines,  
education and  
QI design

**Webinars**

**Face-to-face  
workshops**

**Regional  
shared learning  
events**



# Vision

All DGHs in the UK to be part of collaborative regional pAMS networks and benefit from:

- Shared learning within community of practice
- Prescription quality monitoring and regional benchmarking service
- Access to educational resources for local use
- Greater team collaboration between and within hospitals

*Scope for national connections between regions and expansion into primary care*

**Raising the profile of AMS and ultimately improve antimicrobial use for children**



# Experiences in South Yorkshire

“The network has cultivated a more **collaborative and proactive culture**, encouraging open dialogue across departments around antibiotic prescribing practices across site for neonate and children....**strengthened communication and fostered closer working relationships** not only between microbiology, pharmacy, and clinical teams within our trust, but also with neighbouring trusts and Sheffield Children’s Hospital... has helped drive clinical engagement and encourage a **cultural shift towards stewardship as a collective responsibility... fostering a sense of community, shared purpose, and continuous improvement.**”

- Dr Yee Pang. Consultant Microbiology Barnsley Hospital NHS Foundation Trust.



Thank you for your time

[charlotte.fuller6@nhs.net](mailto:charlotte.fuller6@nhs.net)

