Hospital at Home in CYP

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Disclaimer

- ST is not speaking on behalf of RCPCH
- Neither speaker has a conflict to declare



Learning objectives

1. To understand what H@H is
2. To understand different H@H settings
3. To learn about the evidence base for H@H
4. To understand the challenge and reward in setting up a H@H service






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A bit of history

- 1978 Peterborough Study
- 2006 Croydon Pilot (Virtual ward)
- 2014 first paediatric H@H service
- 2020 “COVID acceleration”
- 2025 National H@H service
- Currently
  - 20-25 beds/100,000*
  - 11 beds/100,000*

> If you don't know where you come from, it's difficult to determine where you are.- It's even more difficult to plan where you are going.
>
> — Joseph Lowery —

* *This includes CYP, ~2400 beds in England, ~110 in Scotland*

Adult and CYP H@H - comparison

	Adult	**CYP**
Complexity	++/+++	+/+++
Emotional needs	++	+++
Indirect costs	+/++	++/+++
Tech	+++	+/++
Introduced	Pre-admission	Post admission*

What is THE definition?

*"Hospital at Home is an **acute clinical service** that takes staff, equipment, technologies, medication, and skills usually provided in hospitals and delivers that hospital care to **selected people in their homes** or in nursing homes. **It substitutes for acute inpatient hospital care**."*

https://www.hospitalathome.org.uk/whatis

WORLD HOSPITAL AT HOME CONGRESS™

What is THE definition?

These are not (strictly) H@H:

- OPAT (outpatient IV Rx)
- Home care
- Care provided by community staff



https://www.hospitalathome.org.uk/whatis

Who is up and running?

- Birmingham
- Bradford
- Dundee
- Glasgow
- Larbert
- Liverpool
- London
  - Evelina, Royal Free, Guys St Thomas
- Manchester
- Oxford
- Paisley
- Poole
- Scunthorpe
- Wolverhampton
- Et al!



What services do they offer?

- Few offer all
- Start small!
- Neonatal
  - Phototherapy
- Paediatric
  - OPAT
  - General paed (acute)
  - General paed (elective)
  - Complex

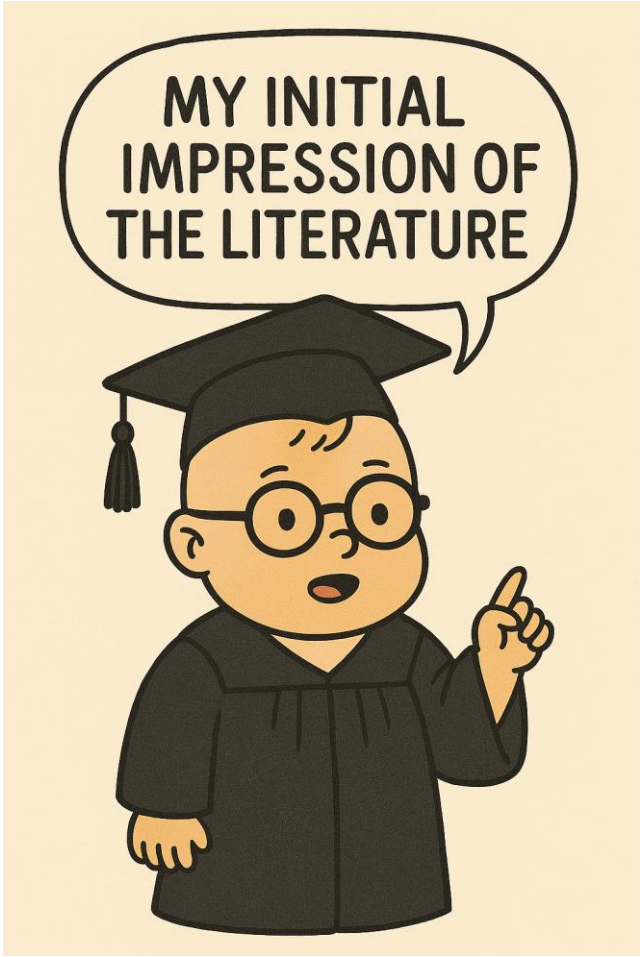


Hospital at Home



Hospital at Home

- Need a key word!
- Definitions vary
- Mostly before and after
- Wide rage of clinical settings
  - OPAT
  - Complex
  - Photo Rx
  - General paed (acute)
  - General paed (elective)



Hospital at Home - Neonates

- Safety
- Cost
  - Direct
  - Indirect
- Duration of care
- Qualitative

Home-Based Phototherapy Versus Hospital-Based Phototherapy for Treatment of Neonatal Hyperbilirubinemia: A Systematic Review and Meta-Analysis

Clin Pediatr 2020;59:588–595

Efficacy of home phototherapy versus inpatient phototherapy for neonatal hyperbilirubinemia: a systematic review and meta-analysis

Ital J Pediatr 2024;50:372

Home- versus hospital-based phototherapy for the treatment of non-haemolytic jaundice in infants at more than 37 weeks' gestation (Review)

Cochr Database Syst Rev 2014;2014:CD010212

The efficacy of home phototherapy for physiological and non-physiological neonatal jaundice: A systematic review

Candice Megan Anderson [a,*], Yogavijayan Kandasamy [a,b], Meegan Kilcullen [a]

J Neonatal Nursing 2022;28:312–326

The effectiveness of neonatal early supported transfer to home interventions for parents and preterm infants in neonatal intensive care units: A systematic review and meta-analysis

Oliver Hamer [a,*], James Hill [a], Jennifer Kuroski [a], Richa Gupta [b], Victoria Appleton [a], George Georgiou [a], Gill Thomson [c], Andrew Clegg [d]

J Neonatal Nursing 2023:29:429-443

Hospital at Home – Photo Rx

Article	Year	N studies	Length of Rx	Anything else
Malwade et al (Cochrane)	2014	None		
Chu et al	2020	4 RCTs (259)	↔	↑rate of fall. “It’s safe”
Anderson et al	2022	3 RCTs 10 others	↔	“It’s safe” Parents ☺, ↓ cost
Li et al	2024	4 RCTs 5 cohorts (998)	Home ↑ duration	↓Parental stress More research is needed

Hospital at Home - Children

- Safety
- Cost
  - Direct
  - Indirect
- Duration of care
- Qualitative

Original research

Systematic review of interventions to reduce hospital and emergency department stay in paediatric populations

Smita Dick [1], Clare MacRae,[2] Laura Colacino,[3] Philip Wilson [4], Stephen W Turner [1,3]

Arch Dis Child 2025;**110**:120-126
18 studies

Inpatient versus outpatient parenteral antibiotic therapy at home for acute infections in children: a systematic review

Penelope A Bryant, Naomi T Katz

Lancet Infect Dis 2018;**18**: e45–54
25 studies

Systematic literature review on the effectiveness and safety of paediatric hospital-at-home care as a substitute for hospital care

Jens Detollenaere[1] · Ingrid Van Ingelghem[2,3] · Koen Van den Heede[1,4] · Joan Vlayen[5]

Eur J Pediatr 2023;**182**:2735–2757
19 studies

Hospital at Home

- **Is it safe?**
- Nothing is safe!
- Staff hold risk well
- No evidence of harm
  - Readmissions
  - Treatment failure



Hospital at Home

- **Does it save £s?**
- Cost analysis flawed!

✓ ↓LOS

✓ ↓bed occupancy



Hospital at Home

- **Does H@H care last longer?**

✓ Yes (never shorter)

✓ Typically 1-2 days



Hospital at Home

- **What do families think?**

✓ Saves money (not flawed)

✓ Benefits sibs, carers



What do families and clinicians want?

Potential intervention	Mean score	Rank
Addressing gaps in acute paediatric skills of health professionals working in community settings.	2.53	1
Creation of holistic children's 'hubs'.	2.73	2
Assessment and observation of acutely unwell children in community settings.	3.00	3
Hospital at home model.	4.47	4
Specialised care pathways—for wheeze/bronchiolitis.	4.76	5
Specialised care pathways—for convulsions.	4.94	6
Specialised care pathways—for under 2s.	5.33	7

BMJ Open 2023;13:e074141

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Hospital at Home

- **Do staff benefit?**

? Fulfilment

? Challenges



Setting up a H@H service

1

Challenge and reward

What makes it hard, and why it is worth it

2

Up and running

The steps from idea to first patient

3

Evaluations

What existing UK services have shown

4

Parent testimonies

Families in their own words

The challenge

Funding
Savings often land elsewhere in the system; recurrent money is harder to win than pilot money

Workforce
Acute-skilled children's nurses, seven-day cover, pharmacy and medical time

Holding risk
Clear criteria, clear escalation and a route straight back to the ward

Buy-in
Board, consultants, ward and ED teams all need to trust the model

Referrals
Low awareness means empty beds at home; visibility is daily work

Equity
Housing, language, digital access and carer capacity shape who can say yes

Funding barriers as reported by the PATCH team: Pharmaceutical Journal, "How to develop a new clinical service"

The reward

Children and families

- ✓ Recovery in their own bed
- ✓ Family stays together, siblings included
- ✓ Lower out-of-pocket costs
- ✓ Parents grow in confidence

Staff

- ✓ Fulfilment and autonomy
- ✓ Skills that span acute and community
- ✓ A reason to stay in nursing

The system

- ✓ Beds released for the sickest children
- ✓ Shorter hospital stays
- ✓ Fewer avoidable admissions

Start small, show the benefit, then grow

How to get up and running

1

Define the need

Your own admissions, length of stay and bed-day data

2

Build the team

Nurses, a named consultant, pharmacy

3

Agree governance

SOPs, escalation, daily virtual ward round

4

Secure funding

Business case; pilot or charitable money to begin

5

Start small

One pathway, one site, tight criteria

6

Launch and measure

Collect data from day one, then expand

Further reading: NHS England, A guide to setting up technology-enabled virtual wards; RCPCH paediatric virtual wards position statement

What you need before day one

- ✓ Inclusion and exclusion criteria
- ✓ Referral form and a single point of contact
- ✓ Daily consultant-led virtual ward round plan
- ✓ Medicines: PGDs, IV SOPs, stock list
- ✓ Kit: sats monitors, scales, pumps, phototherapy
- ✓ Shared record and an agreed data set

The safety net

✓ A phone line that is always answered

✓ Open access back to the ward

✓ Written advice parents can act on

✓ Parents know exactly when and who to call

Sources: Healthy London Partnership summary of the King's service; Pharmaceutical Journal (PATCH)

Evaluation: Evelina London and King’s

11,092

bed days saved

11.1%

reattended hospital

2.7%

parent-initiated reattendance that led to admission

1.09–1.25

nursing contacts per bed day saved

Three-year retrospective evaluation, children aged 0–16

Are virtual wards for children safe and effective? Arch Dis Child (PMID 39542660)

Evaluations of other UK services

Service	What was looked at	What it showed
King's College Hospital, 2016	72 children over three months	44% would otherwise have been admitted; 64 bed days saved
King's College Hospital	Healthy London Partnership summary	841 inpatient bed days saved (£336k)
PATCH, North West London	Admissions; friends and family test	Fewer assessment-unit admissions; 100% of families would recommend
Dudley and the Black Country	Activity	1,000th patient at Dudley; 4,000+ children across the region
Blackpool	Activity	1,000+ children supported; early average stay five days

Sources in speaker notes: Nurs Child Young People 2017;29(10):31–37; Healthy London Partnership; NHS England; Black Country ICS

Evaluating your own service

Activity	Referrals and their source, diagnoses, days on the caseload
Safety	Reattendance, readmission, escalations, incidents
Experience	Family feedback, friends and family test, staff voice
Value	Bed days saved, contacts per bed day, costs to families
Equity	Who is offered it, who declines, and why

Measures reported in Arch Dis Child (PMID 39542660); equity and carer burden: BMC Pediatrics 2022 (SJD a Casa)

Parent testimonies

“so beneficial to Hope, and our other children”

Sarah, Hope’s mum • Blackpool

“The virtual ward was amazing for my son”

Claire • Dorset

“transformed our experience and saved us money”

Maria, mum of four • Sandwell and West Birmingham

“I am so grateful that the service was available to us”

Parent • The Royal London Hospital

Sources: NHS England; University Hospitals Dorset; BirminghamWorld; Barts Health NHS Trust

Hear it from families

Watch



Claire’s story: baby Louie

Oxleas NHS Foundation Trust

youtube.com/watch?v=3TdSzvl16cg



A mother of twins’ story

University Hospitals of Leicester

youtube.com/watch?v=D-o1JSDrytE



Hospital at Home: Dorset

https://youtu.be/RwlT8zD3IQQ?si=Cf1oqkoqRrcKYsHD

Read



1,000 children treated at home

The Royal London Hospital

bartshealth.nhs.uk/news/service-treats-ov...



Baby Noelle: 20 years of Wallaby

Royal Children’s Hospital Melbourne

blogs.rch.org.au/news/?p=10596

Scottish reflections

- Start small (low risk) and build
- Be flexible
- Collect data and often
- Parent feedback
- Don’t recreate the wheel (thanks Zoe!)
- Easy and obvious referral process
- Shared team office
- Clinical records, inc GP letters



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And now for questions

