

# National Grand Rounds

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## Individualised, flexible and child-centred Paediatric Interdisciplinary Team rehabilitation

**On behalf of the Paediatric Interdisciplinary Team**

Dr Susan Finn. Consultant Paediatrician in Rehabilitation Medicine

Dr Sarah O'Doherty, Principal Clinical Paediatric Neuropsychologist

Michael Brogan, Clinical Specialist Paediatric Occupational Therapist

# Introduction to our Service

- Who we are
- Who we see
- The process

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A Child's Story

Thoughts for the future



# Paediatric Child and Family- Centred Programme Overview

Our **child and family-centred** rehabilitation approach supports the child within their **own family environment** and within the **wider community** setting, including **school**. The aim is to optimise functioning and participation in all aspects of the child or young person's life.

# The Team

Medical Team

Programme Manager

Admin. Support

Nursing

Physiotherapy

SLT

OT

Social Work

Psychology

School

Music Therapy

Art Therapy

Catering

Dietician



# What we do

- Inpatient, multidisciplinary complex rehabilitation for children and young adults less than 18 years old.
- CARF accredited
- 8 inpatient beds and capacity to see 2 further children as day patients.
- Waiting time 3-12 months, depends on complexity (4 months last year)
- OPD follow-up at designated times
- Liaison with schools and community services
- Re-entry as appropriate



# Who we see

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- Acquired Brain Injury
- Acquired Spinal Cord Injury
- Limb absence, congenital and acquired



# Referral Process

- Health and Social Care professionals
- Majority from Paediatric Hospitals
- Standardised Referral Form including clinical information
- 70-75 referrals per year of which 75% are accepted
- Active waiting list if ready
- Pre-admission work



# Referral Process

## Consent sought

- Ideally, we would like to communicate with school, medical and allied health professionals before and after admission

## Liaison nurse

- Seeks further detail
- Explains the service
- Arranges a visit
- 'Who am I' document



# The admission

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- 2 weeks assessment
- Goal document and estimated discharge date  
(this is a more live document than it was previously)
- Goal Review
- Family meeting
- School call / community services call
- New patient average 8 weeks
- Return patient average 6 weeks
- 6 week follow up call
- OPD at an appropriate time
- Readmission if appropriate

# Dr Sarah O'Doherty

Principal Paediatric Neuropsychologist

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Meet Amy...

# Amy's injury

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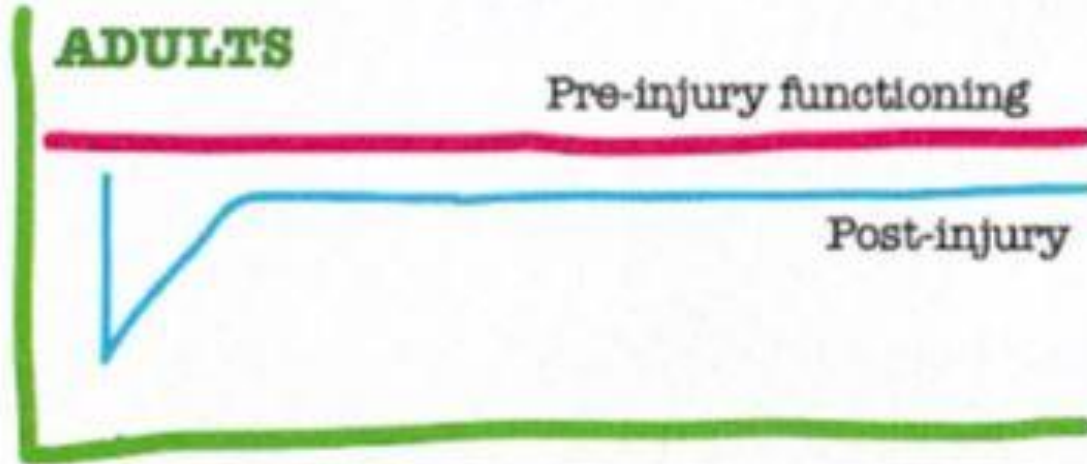
- February 2019 near-drowning
- Cardiac arrest after approximately 10-minute submersion
- Resuscitated, brought to UH Limerick and transferred to CHI Temple Street
- MRI day 3 diffuse brain injury in keeping with acute hypoxic ischaemic injury
- Developed seizures day 7
- ICU for 18 days where initial “severe fatigue, agitation and dystonic movements” noted
- 5 months intensive acute rehabilitation in Temple Street
- Planned transfer direct to NRH services

# Broad predictors of outcome following ABI

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- Type of injury
- Severity of injury
- Some variables specific to near-drowning injury
- Child's own variables; age, stage of development, pre-injury personality, any pre-existing difficulties.....
- Environment and services

## Changing profiles in children and adolescents after ABI



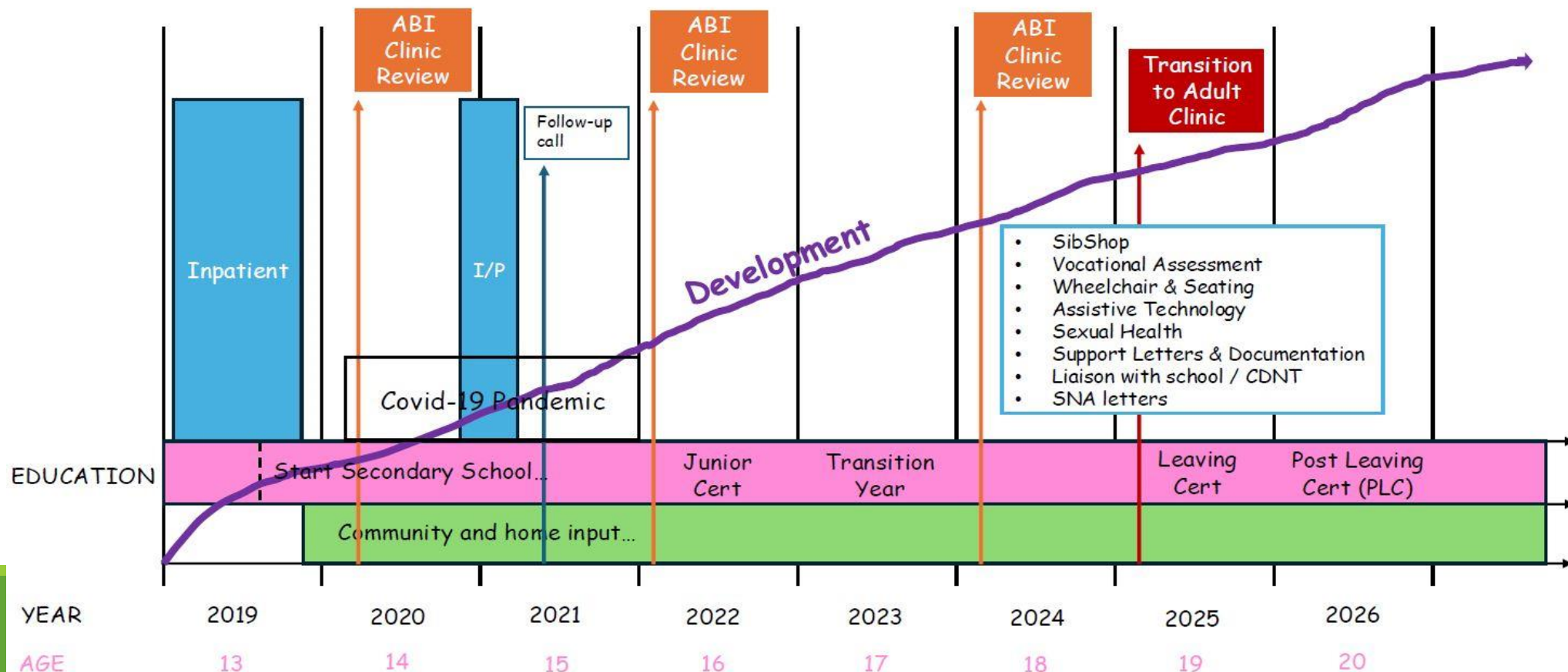
## Impact of injury is not static in children

- The widening gap....
- Demands and expectations change and increase with age
- Their world changes
- More demand is placed on affected skills
- In general, skills in the process of emerging or those yet to be gained are more affected
- Need to monitor their future development

# How do we meet these changing needs?

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- This potential for change over time underpins how we deliver our service
- We use the broad predictors of outcome
- Project into the future based on what we know about that individual child
- Monitor their progress
- Anticipating needs
- Addressing any issues as they arise
- Specific services at key developmental points and life stages
- Educating those around them



# Amy's Journey



2 & 4 months post-injury

# Michael Brogan

Clinical Specialist Paediatric OT

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# Amy's challenges on admission to the NRH

## International Classification of Function

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### Body Function & Structure

#### Physical

- Cerebellar Ataxia
- Proximal weakness
- Reduced upper limb co-ordination and dexterity

#### Cognitive/communication & Behavioural

- Reduced safety awareness
- Reduced auditory memory and recall
- Impulsive, agitated and disinhibited
- Decreased speed of information processing
- Reduced attention
- Reduced auditory memory and recall
- Difficulties with verbal reasoning and problem-solving skills

And she was due to start  
in 1<sup>st</sup> year in Secondary  
school soon



# International Classification of Function

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## Activity Limitations:

- Difficulty sitting by herself safely
- Difficulty standing by herself
- Unable to walk
- Difficulty transferring from chair to bed by herself safely
- Unable to go to the toilet independently
- Unable to dress and wash herself independently
- Unable to transfer into a standard car independently

## Participation Limitations:

- Unable to participate in some of Amy's favourite hobbies
- Unable to return to school at present

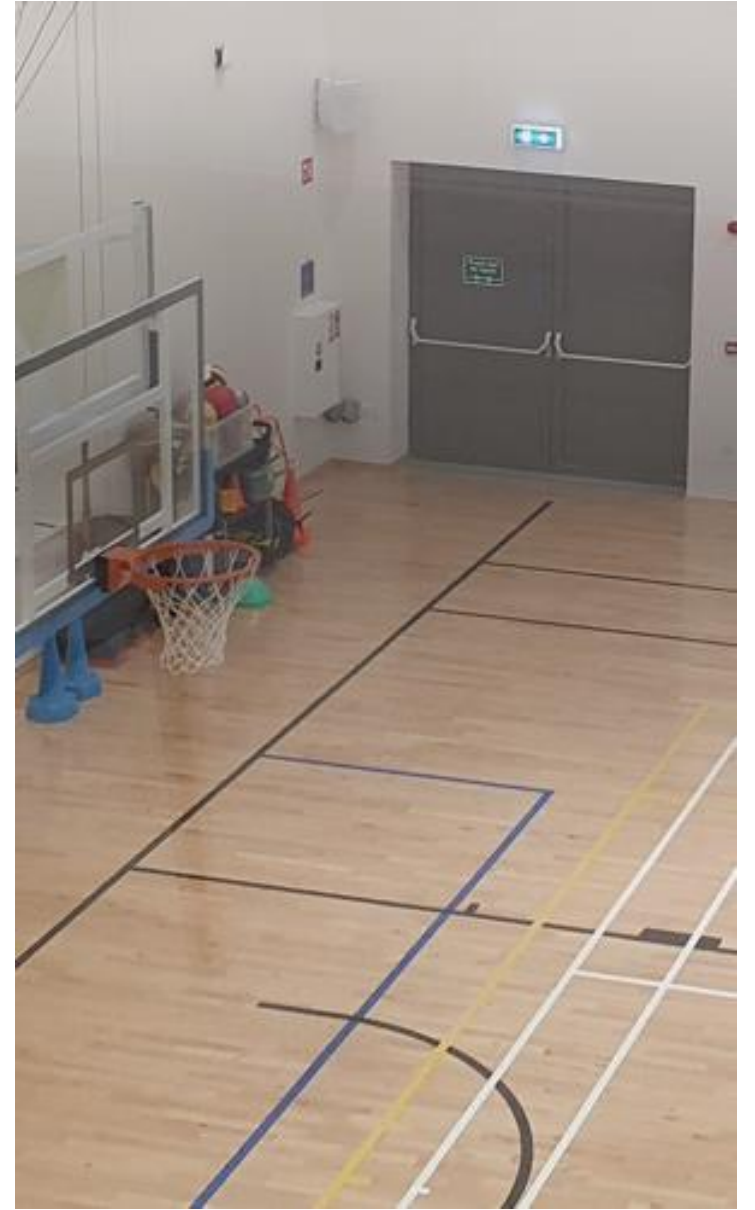
# What did intensive 24/7 rehab look like?

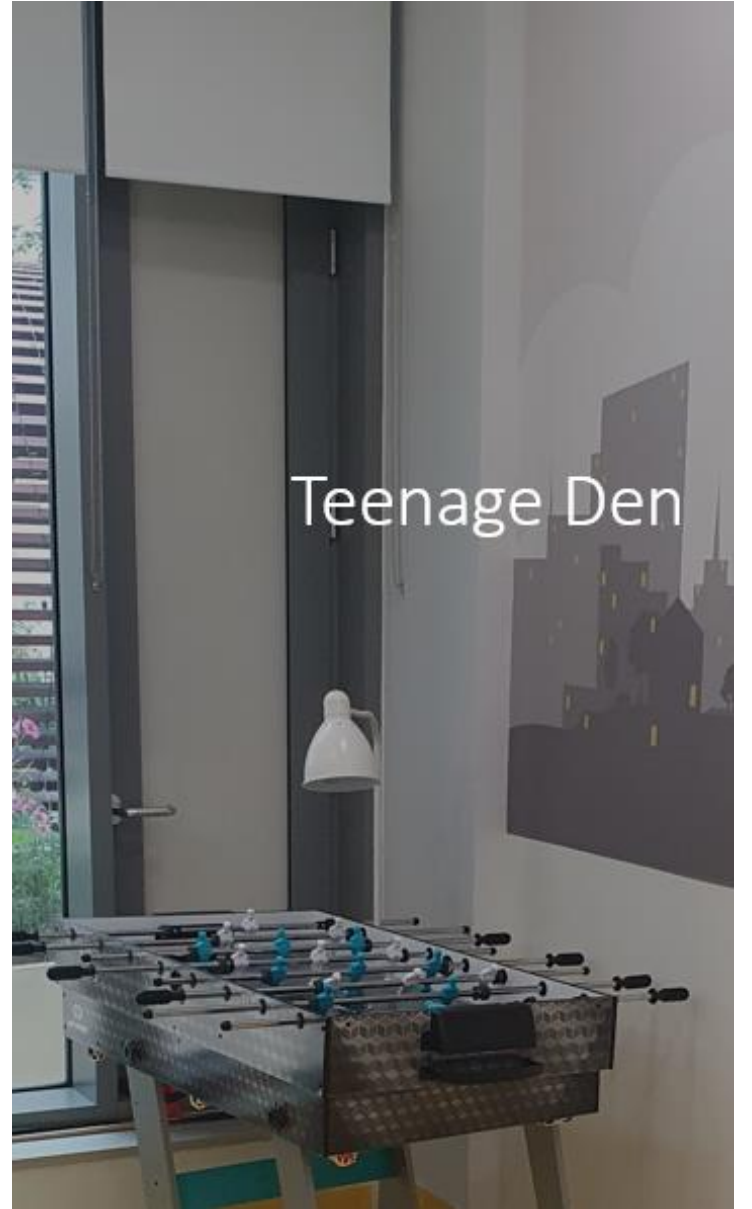


- SMART Amy and family-centered goals
- 1:1 and group intensive daily therapy across many IDT members
- Weekend goals for visits home
- Family support
- NRH school classroom-based IDT interventions and practice
- IDT Behavioural support – Psychology led
- Trauma informed team approach
- Repeated opportunities for meaningful intense practice to target Amy's goals

# Amy's progress







# Supporting functional memory

What did  
intensive  
24/7 rehab  
look like?

## MAKING PICTURES IN MY HEAD TO HELP ME REMEMBER WHAT I'VE DONE

1. **Where was I?**..... What did the room or the place look like? What objects were in the room and where were they in the room?
2. **Who was there?** .....Who was in the room or the area? Where were they sitting or standing or lying down or kneeling?
3. **What was the other person doing?** ....Was the person talking to me? or asking me to do something? Or playing a game with me? Or showing me something?
4. **What was I doing?** ... Was I playing a game? Or following instructions? Or making something?
5. **What happened at the end?** ...Who won the game? Did I get homework? Did I eat something? Did I celebrate?

## What did intensive 24/7 rehab look like?

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### Outing to Dundrum

We are going to Dundrum shopping Centre. We will be here from 2-3pm. Please remember the floor we are parked on so that we can leave on time.

Find Marks & Spencer's and purchase the ingredients you need for Friday. You have 15 minutes to complete this

Find Pennys. You are involved in your class Secret Santa and you need to buy your classmate a gift. The limit is 10e and you must buy two items. What are you going to buy?



# Amy leaving the NRH



## “Getting back to the real world and out of the NRH bubble”



### Consolidation of gains made

- 16 weeks of inpatient intensive Rehab Amy needed to consolidate these skills in the real world
- Our re-entry model = ‘timely’ intensive rehabilitation 9 months later

# ABI related fatigue

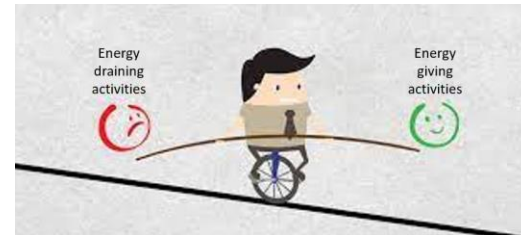
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“This has been the biggest thing for me always, how severe my Fatigue is, more than anything else it impacts my life most”

Alongside good physical and cognitive recovery it is very typical for children with ABI to have persistent, chronic ABI related fatigue



Heads Up!



# School for Amy

A complex transition to  
Secondary school for Amy

Through IDT working with our  
NRH school our team primed  
Amy for her return

School is the conduit for rehab in  
the real world



# Amy's transition to adult services

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- Vocational Assessment jointly between Paeds team and NRH Adult Vocational Service
- Transition to adult services clinic
- Ongoing CDNT support until she left school
- Recently transitioned to community-based services – Headway, ABII, CNRT



# Amy's hopes for the future

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QUESTION: NOW YOU HAVE LEFT SCHOOL AMY, WHAT ARE YOUR GOALS AND EXPECTATIONS OF THE FUTURE?

# Dr Susan Finn

Paediatric Consultant

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Final thoughts and reflections - ABI in children is different to adults change and evolve over time

# What Else:

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## OPD Clinics

- ABI
- Spinal
- POLAR
- Transition to Adult
- Whizzy Wheels
- Heads up -Transition to secondary school
- Sib Shop
- Tele rehab

# Going forward

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- Onsite family accommodation
- Day Rehabilitation
- More Telerehab “Keep children out of Hospital”
- Develop National Pathway

## NRH Paediatric Programme: Education & Training Survey

