

# PAEDIATRIC NEURO REHABILITATION ANALYSIS OF CASELOAD

CHRIS HANI BARAGWANATH  
ACADEMIC HOSPITAL

Pamela Gibbs  
Hema Thakor  
Linda Hitchman







# Paediatric Neuro Rehab Clinic

- Started in 1991 as a “CP Clinic”
- Many developments & changes
- Strong multi-disciplinary focus

*Our Vision:*

*Leaders in multi-disciplinary teamwork*



# Need for Investigation

- Initial analysis done in 2008
- Emphasis of DoH on Early Childhood Intervention & Tertiary Level Service

*“Management is aimed at minimising the progressive deformity, improving the child's functional outcome and managing the associated problems” Barbara Laughton, 2004*



# Review of Literature

- Individual vs. group therapy
- Block therapy
- ECI
- Home programmes
- Alternate modalities



# Analysis of Public Sector Service

- Study by G. Salooje, P. Rosenbaum, M. Westaway & A. Stewart:
- Key components of an effective service:
  - Kind & caring attitudes from all staff
  - Specific, practical help on day to day management of the child
  - Information imparted



# Neurodevelopmental Therapy Approach

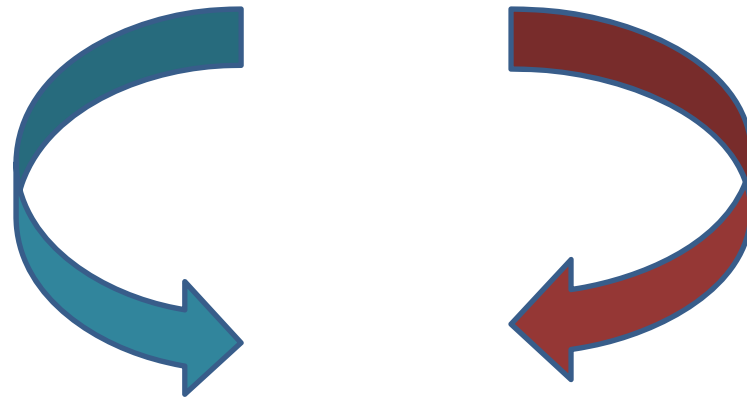
“...it is a (new) way of thinking, observing and handling, in order to interpret what the client is doing, then adjusting what we do in the way of techniques to see and feel what is necessary, to make it possible for them to achieve functional goals.” *Bobath, revised*



# NDT...

- “What the child can do with some help is the child’s potential”  
Bobath, 1978
- “Challenged to produce activity *just* beyond their current level of function”  
Mayston, 2008

*Flow of Services within Neuro  
Rehab clinic*

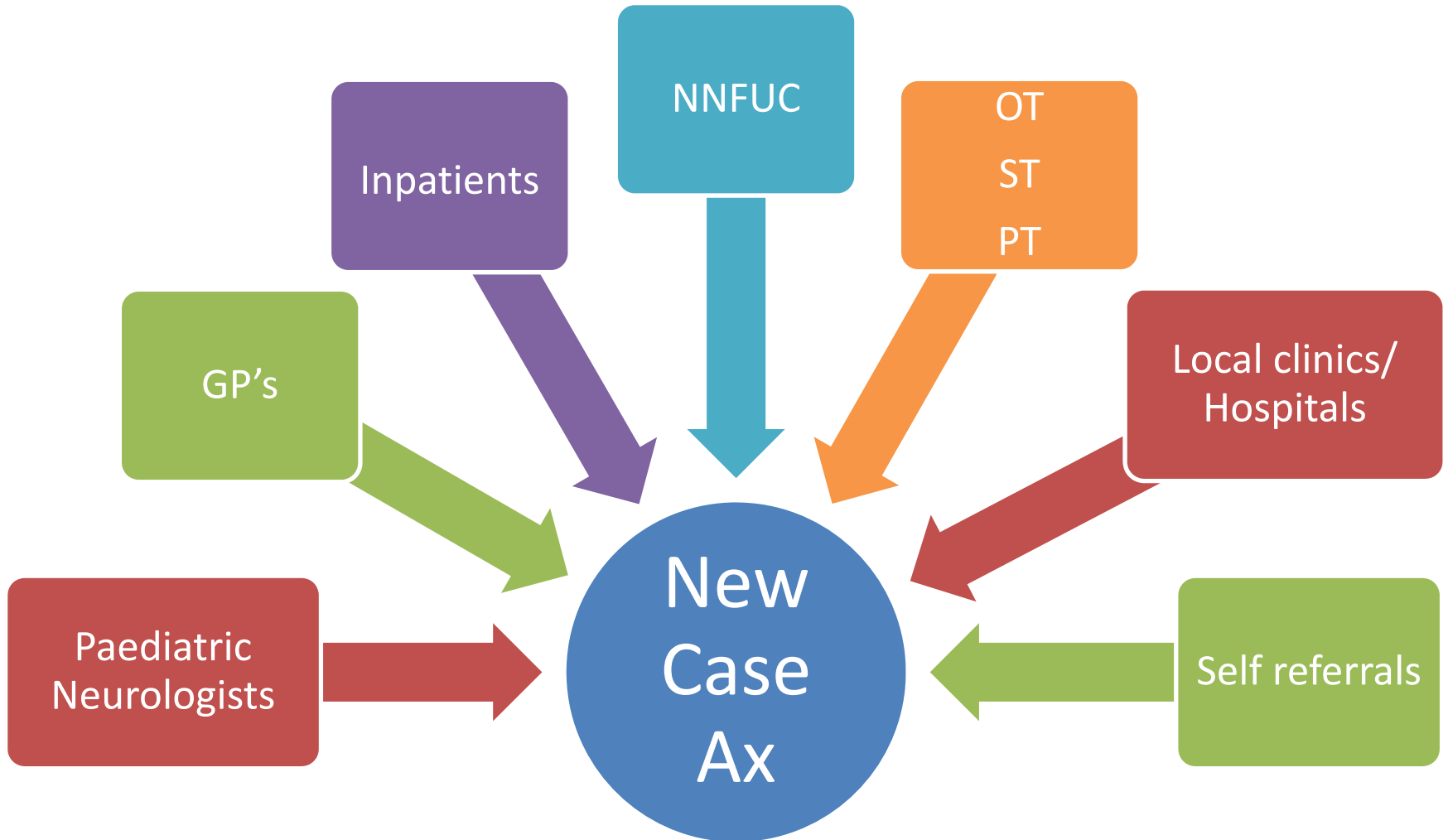




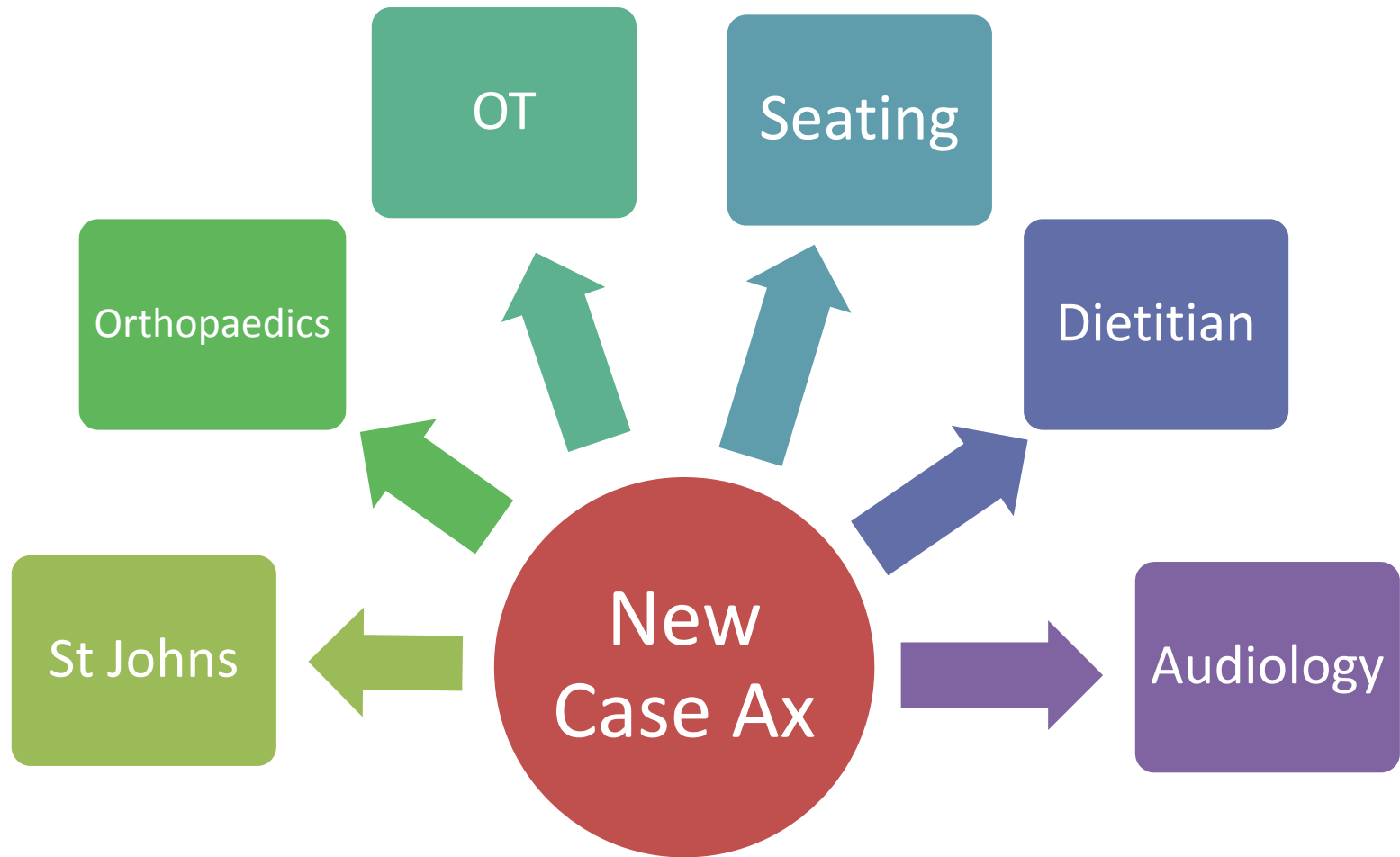
# Referral Criteria

- Within the CHBAH catchment area
- A confirmed neurological diagnosis / obvious neurological involvement:
  - Cerebral Palsy
  - Hydrocephalus
  - RVD encephalopathy
  - Meningitis
- Under the age of 6 years

# Referral Sources

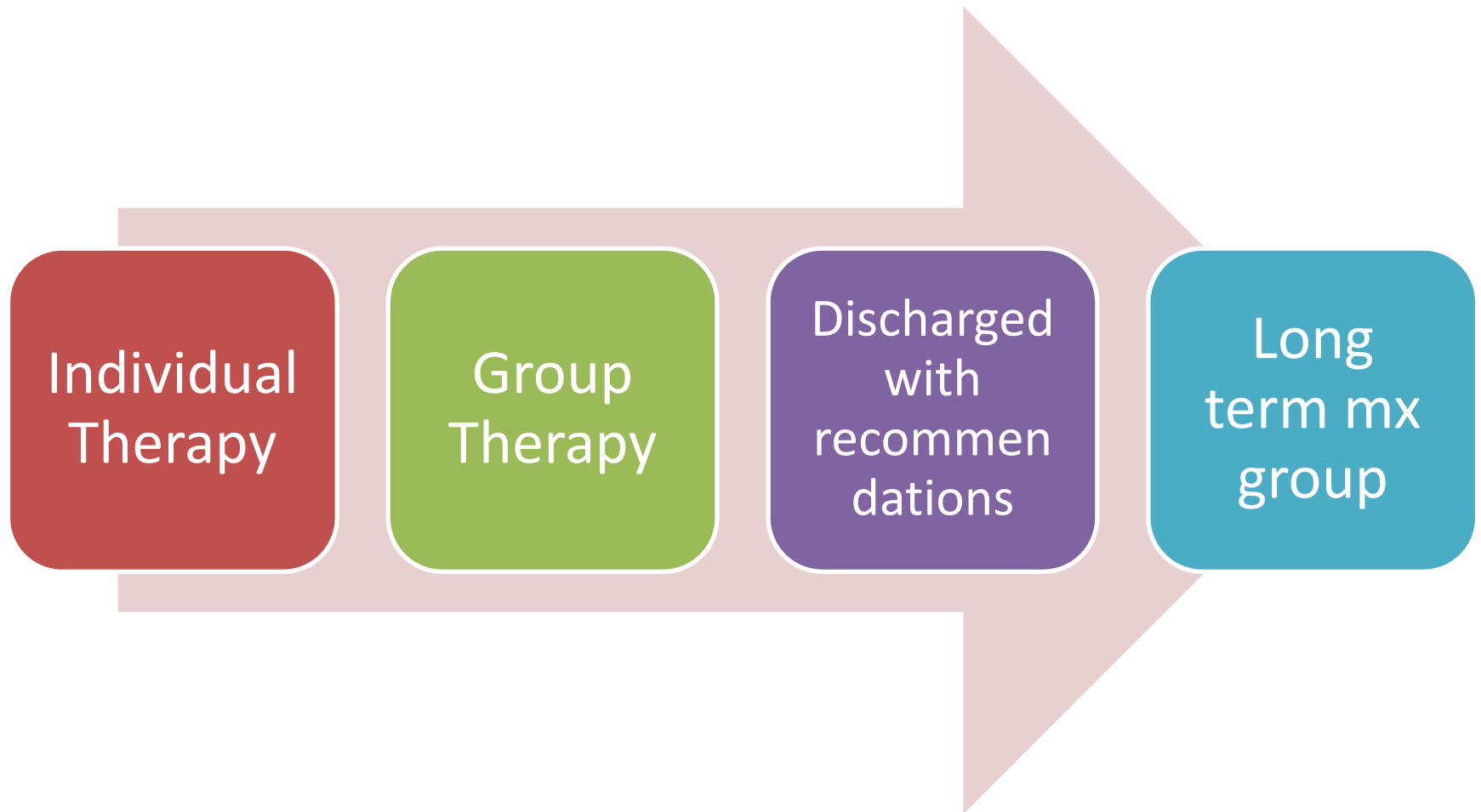


# Additional Referrals



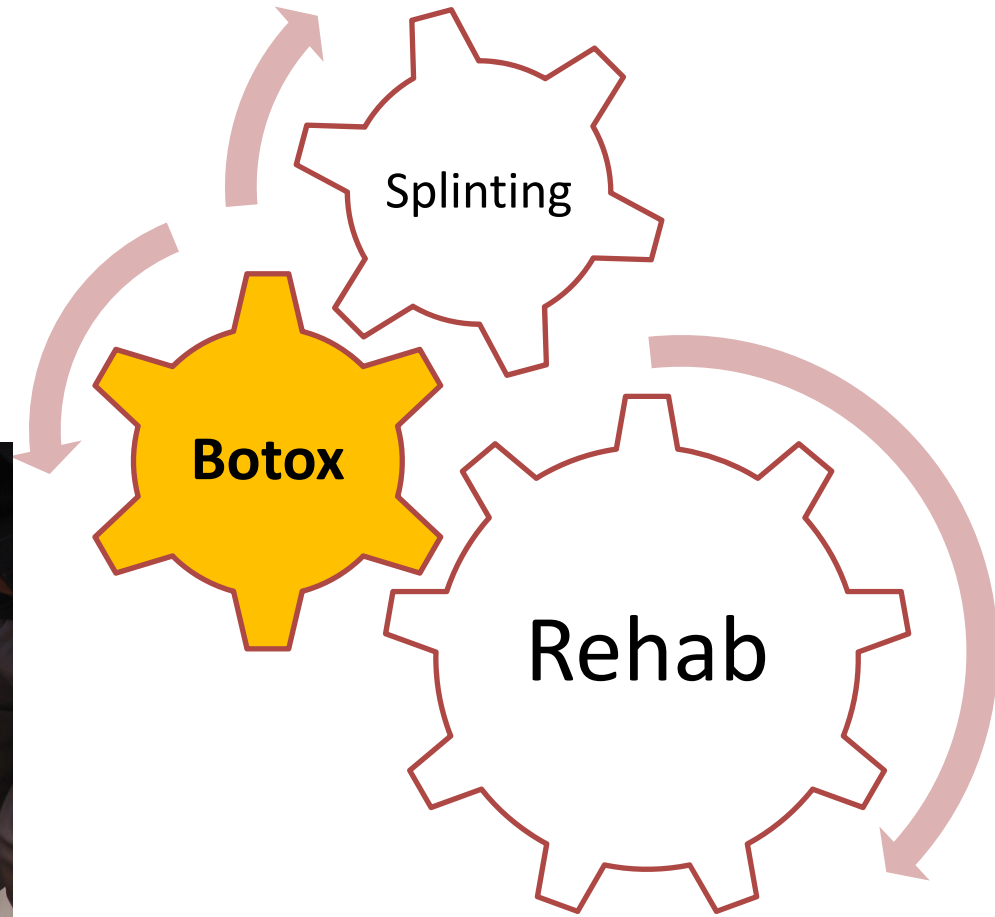


# MDT Rehabilitation





# Co-referral

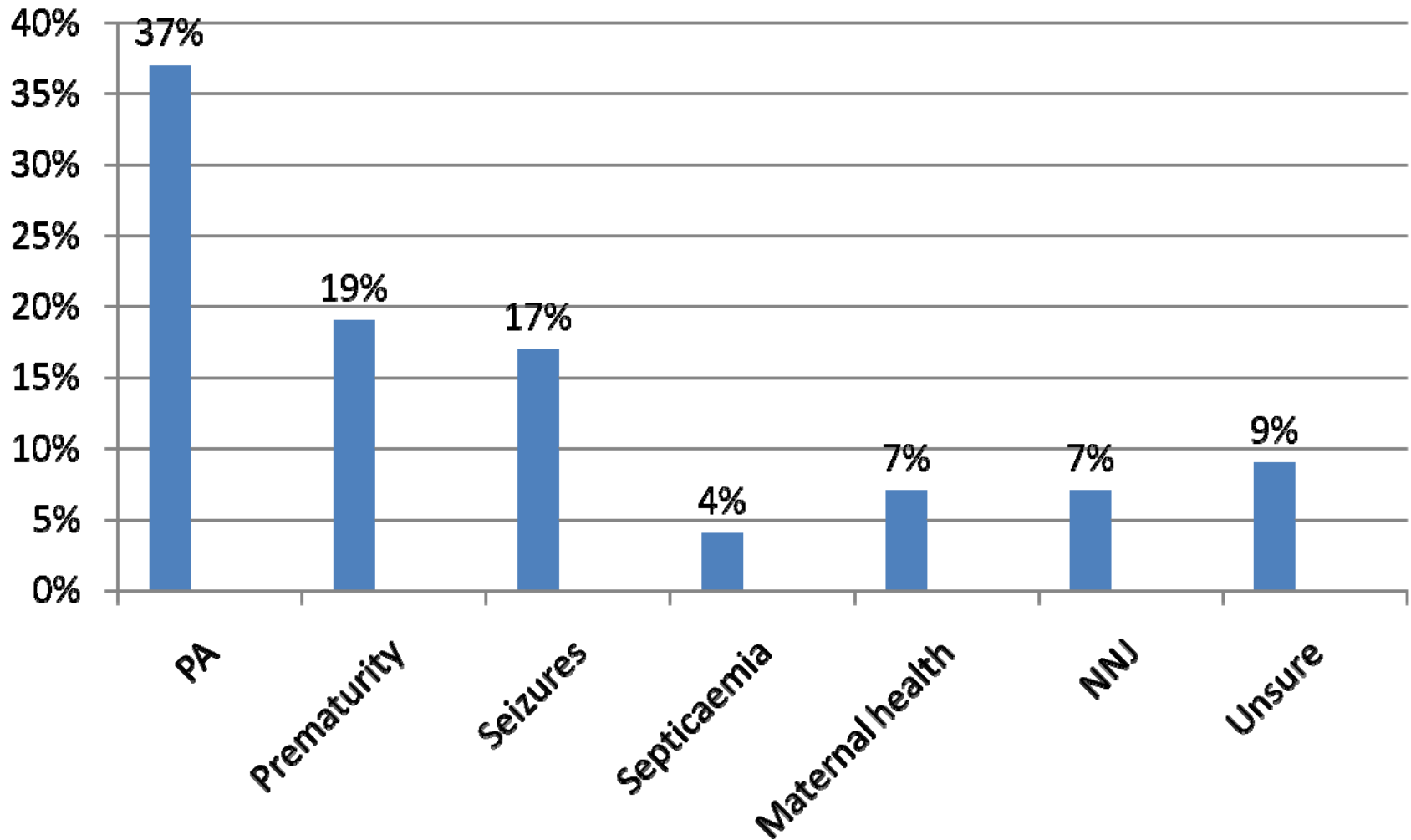


# Botox: Role of the Therapist

- Research holds Therapy in high regard:  
*“Clinical reasoning & expert opinion suggest that providing OT following injections complements the effect of Botox & enhances outcomes”* Wallen et al.
- Role is outlined as:
  1. Assisting in patient selection
  2. Assessing baseline status
  3. Assisting in goal determination
  4. Providing therapy after treatment
  5. Performing the outcome assessment










# Analysis of Aetiology - 2008







# Incidence of Cause of CP

- In the developed world:
  - 75% - during pregnancy
  - 5% - during birth process
  - 15% - after birth

- Bara:

- 38%: PA  
- 19%: Prematurity 
- 17%: Seizures 
- 9% : Unsure   

- 7% - NNJ 
- 7% - Maternal Health 
- 2% - Septicemia 
- 2% - Poisoning 

# Sample Population

All patients who complied with the referral criteria for assessment at the clinic at CHBAH between January – September 2011

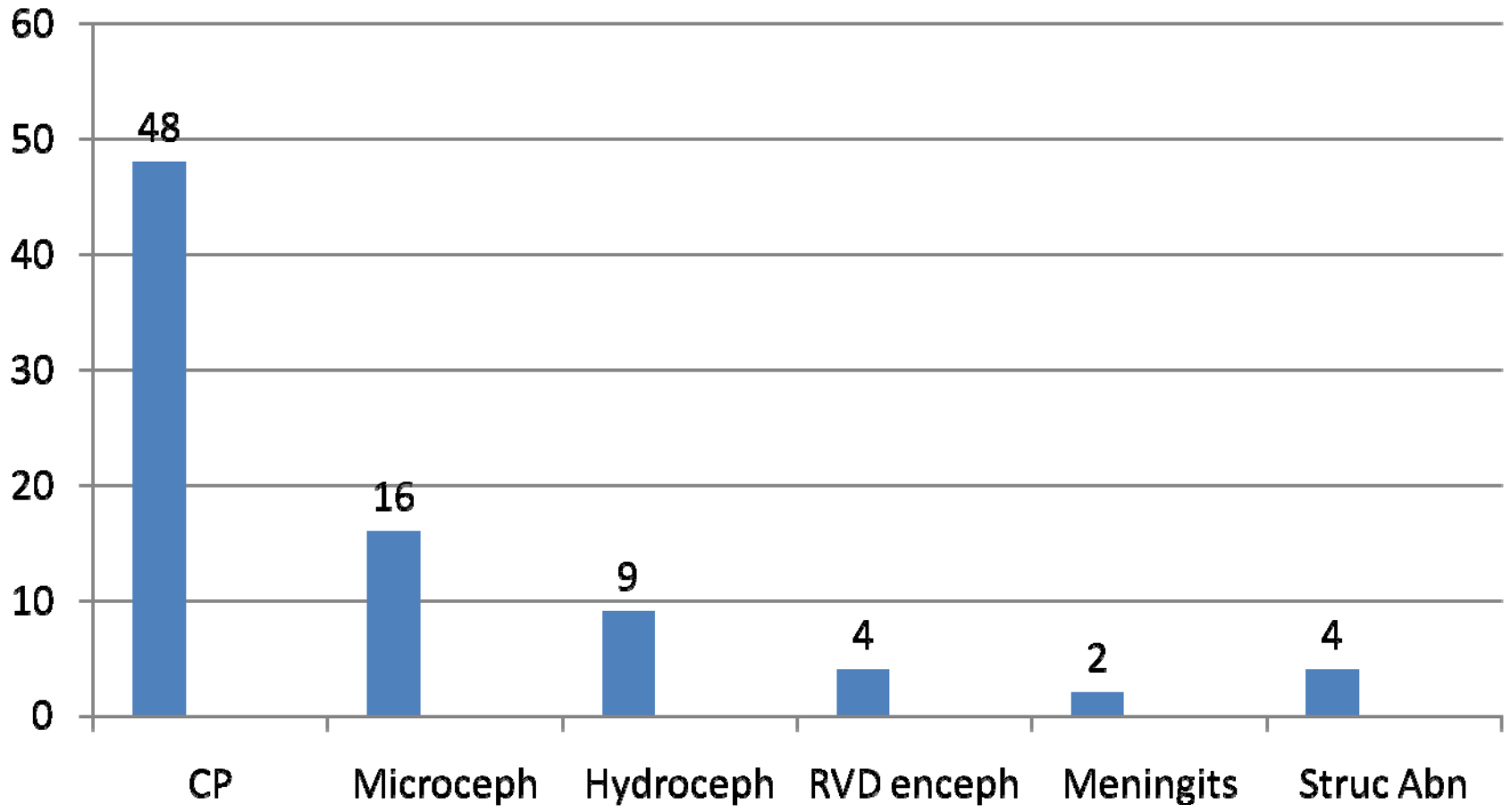
**Sample Size = 83 patients**

# Analysis of Data

- Diagnoses of children being referred
- Co-morbid conditions
- Additional referrals



# Analysis of Diagnosis

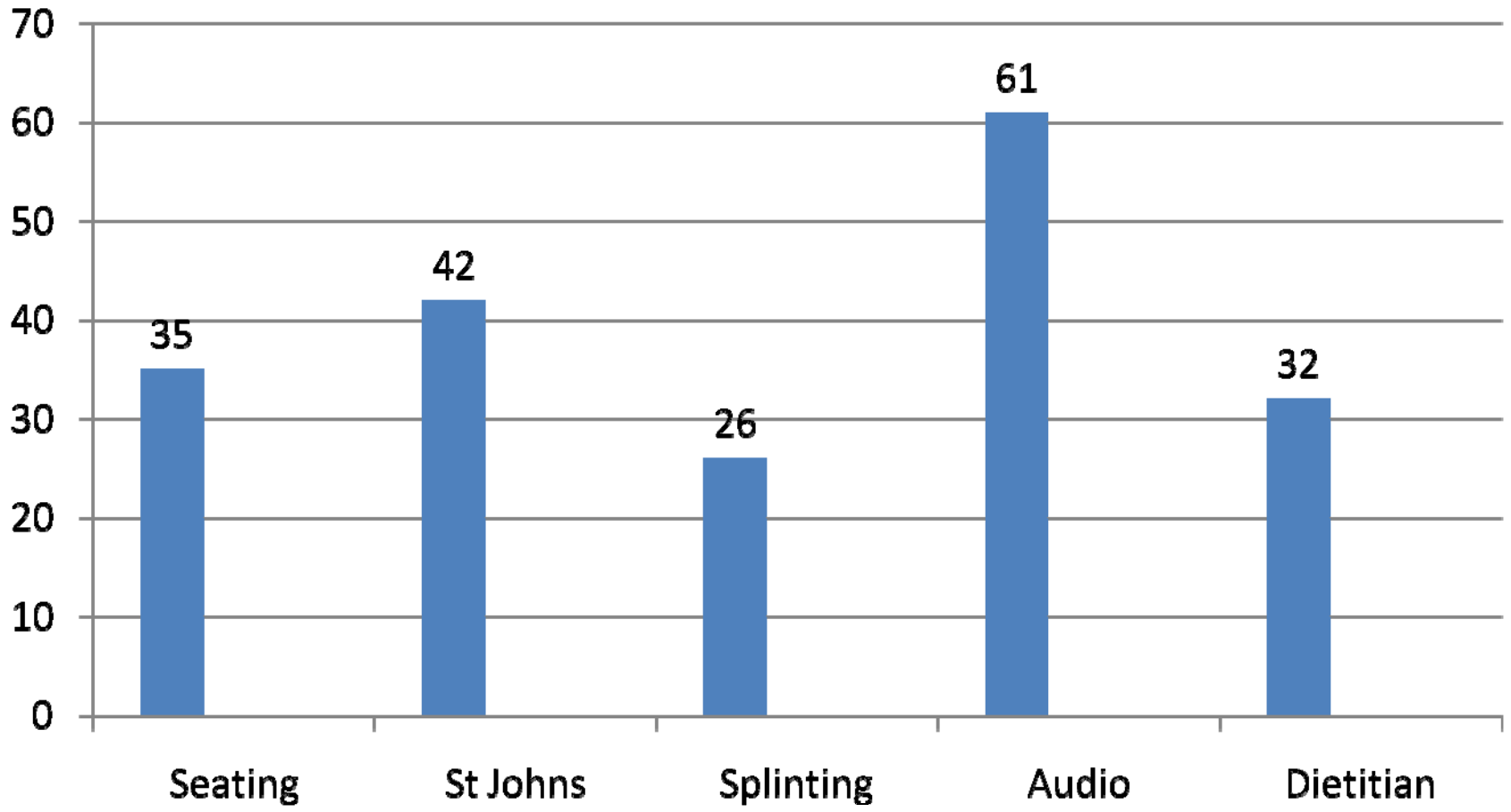




# Co-morbid Conditions

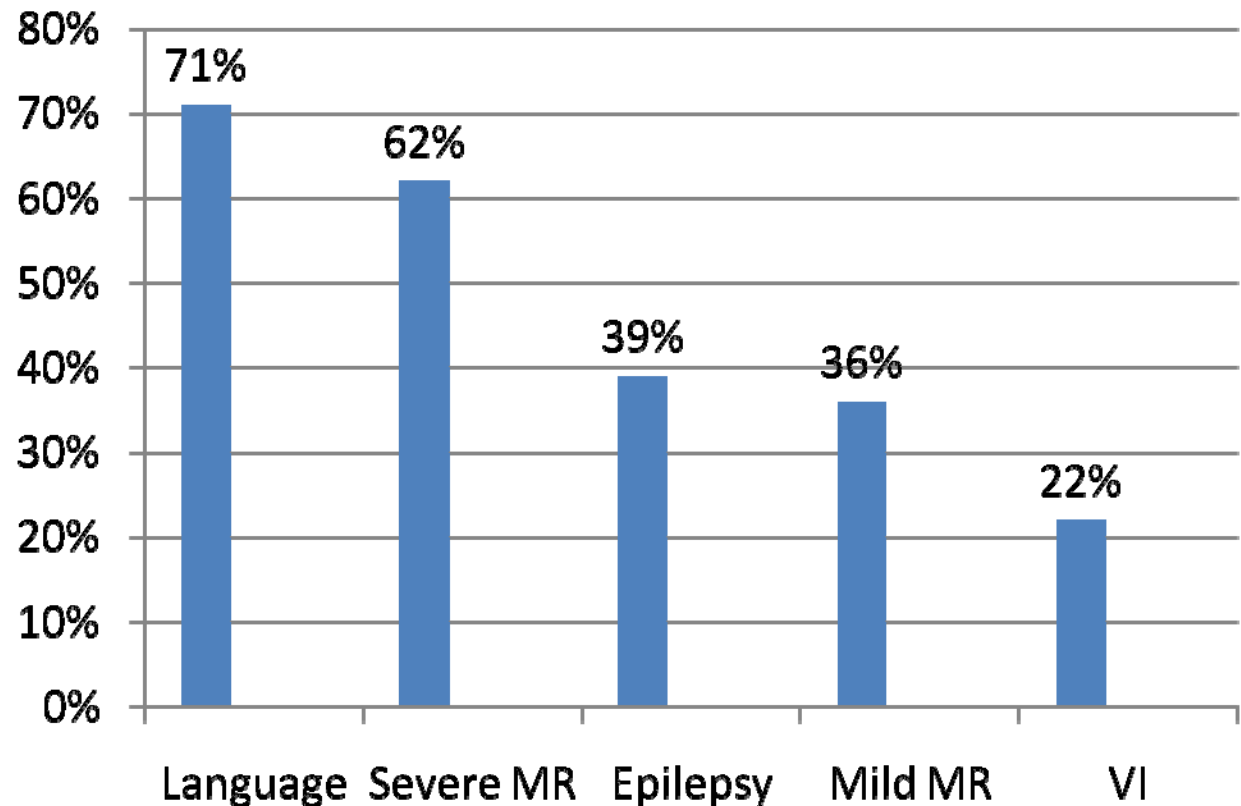
- Failure-to-thrive
- Malnutrition
- Tuberculosis
- Seizures / Epilepsy = 41%

# Additional Referrals



# Comparison within SA

- Universitas hospital, Bloemfontein 1991-2001
- n=157





# Home Programmes

*“Treatment strategies involving both parents and children have shown to be most effective in achieving an enhanced developmental outcome”*

*(Barrera et al. 1986, Shonkoff & Hauser-Cram 1987, Short et al. 1989)*

# Repetition...Repetition...

*“...Process of development & acquisition and refinement of skill,... any human activity which becomes better organised and more effective as a result of practice”*

*Annett, 1971*



# Family-centred Practice (Novak & Cusick)

- Now identified as the “gold-standard” in service for CP children
- Families better positioned to direct, plan & prioritise their child’s health care
- Provide family with knowledge, skills & resources to ID problems in their daily routine
- Set goals in ways that reflect family priorities & values

# Goal Attainment Scale

*“Goal attainment scaling is becoming an increasingly popular technique for evaluating the functional goal attainment of children receiving pediatric therapy services”*

*King et al. 1999*

2 main uses of GAS:

1. To evaluate outcomes for a specific child in order to improve services to that child
2. To determine the effectiveness of a service program as a whole

# Way forward

- Continued capacity building & skills development
- Ongoing analysis of service
- GAS score analysis
- Education & awareness

# THANK YOU!

