The Barnahus model offers the child victim/witness of violence a child-friendly, safe and professional environment to disclose – which is fundamental to the criminal investigation, the judicial process and the follow up of the child. Interview is recorded and used as evidence in court.

Relevant disciplines and agencies are gathered under one roof, providing a multidisciplinary, including medical examination, mental health examination and treatment, response to each child. The model is integrated into the national social welfare, health, and/or justice systems in most countries.

**PROMISE: SUPPORTING THE BARNAHUS MODEL**

<table>
<thead>
<tr>
<th>FORENSIC INTERVIEWS - MENTAL HEALTH PROFESSIONALS SPECIALISED IN FORENSIC INTERVIEWS</th>
<th>ASSESSMENT, THERAPY, SUPPORT - SPECIALISED MENTAL HEALTH PROFESSIONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Court testimonies</td>
<td>Assessment and treatment</td>
</tr>
<tr>
<td>Exploratory interviews</td>
<td>Ensuring access to treatment</td>
</tr>
<tr>
<td></td>
<td>Support to non-offending parents</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MEDICAL EXAMINATION – SPECIALISED MEDICAL STAFF</th>
<th>CHILD PROTECTION – SOCIAL WELFARE</th>
</tr>
</thead>
</table>

*NB: Based on Icelandic model, not necessarily representative of other established MD/IA services*
FROM 0 TO BARNAHUS

- PROMISE 1 explored the criteria for Barnahus and similar models in depth and developed standard setting publications
- Select professionals from around Europe were invited
- PROMISE 2 From 0 to Barnahu is an open invitation to join the discussions within the European Barnahus Movement.
- Key principles, standards, and challenges to consider when opening and operating a multi-disciplinary and interagency collaboration for child victims and witnesses of violence.
PART 2: PHYSICAL ABUSE
DIAGNOSTIC WORKUP AND DECISION-MAKING

FEATURING RESMIYE ORAL
PROFESSOR OF PAEDIATRICS, DIRECTOR OF THE CHILD PROTECTION PROGRAM AT THE UNIVERSITY OF IOWA, USA

CONTRIBUTING SPEAKERS:

Stefan Rune
Consultant Paediatrician at Karolinska University Hospital, Sweden

Watch his webinar now:
Part 1: Framework for medical standards

Andrea Goddard
Consultant Paediatrician and Paediatric Lead, The Havens Sexual Assault Referral Centre, Kings College Hospital NHS Foundation Trust, London UK

Join her webinar 19 November 2018 15:00 CEST, Sexual abuse diagnostic workup and decision-making
How to Do Medical Evaluation for Child Victims of Physical Violence Consistent with BARNAHUS Standards

2018

RESMIYE ORAL, MD
UNIVERSITY OF IOWA
resmiye-oral@uiowa.edu
Yellowstone Ntl Park, WY
Learning objectives

• Know importance of coordinated, collaborative interagency response in medical evaluation
• Understand required facility characteristics
• Understand why medical evaluation is needed
• Understand required staffing and competencies
• Learn steps of diagnostic work up for PA and SA
• Recognize physical indicators of PA and SA
• Develop diagnostic interpretation pathways to PA and SA
• Treatment for STIs in SA
VICTIMS OF PHYSICAL VIOLENCE

Mild, medically stable

Severe, medically unstable

Outpatient Barnahus

Inpatient Hospital
POLL: DO YOU ALREADY WORK FOR A BARNAHUS?
POLL: DO YOU ALREADY WORK FOR A HOSPITAL WITH PEDIATRIC INPATIENT UNITS?
Stake-holders Planning Meeting

- Which cases will warrant a CPT consultation
- How will the consultation system operate
- How will Barnahus and hospital handle bilateral referrals
- Forms to be used during the consult
- Documentation devices and system
- Reporting
- Post-consultation procedures
- Staff education plan
POLL: DO YOU ALREADY HAVE A HOSPITAL BASED MDT
Temple of Apollo, Turkey
Hospital staff education plan

- Create a written protocol on how to recognize, evaluate, and manage physical abuse
- Train all relevant staff on protocol
- Place protocol on your hospital’s website on a password protected page.
- Educate all staff on how to access this web page/protocol on the web.
Diagnosing Abuse

- Suspicion
  - Recognition
    - Diagnosis
Suspecting Abuse

Knowing the risk factors

Environment Risk Factors
- Poverty, unemployment
- Social isolation
- Pedophilia, internet
- Community and domestic violence
- Substance abuse

Child Risk Factors
- Developmentally disabled
- Premature, physical illness
- Dysmorphic features
- Behavioral problems
- Unloved/unwanted
- Runaway
- Previous abuse in index child / sibling

Caretaker Risk Factors
- Mother/father unavailable (Dead, depressive)
- Family disruption
- Substance abuse
- Live in boyfriend
- Single / teenage parent
- Childhood abuse experiences
- Unrealistic expectations
- Perceptions of the child
Do they make sense together?
Oral’s Triangle

Caretaker

Child

DEVELOPMENT

HISTORY

Injury

MECHANISM, EXTENT
**TIMELINE**

- **Birth**
  - Date, BW, delivery

- **Hospitalizations**
  - Dates, duration, cause

- **Illnesses**
  - Dates, cause

- **ER visits**
  - Date, time

- **Last seen normal**
  - Caretakers involved
  - Triggers for abuse

- **Hospital presentation**
  - Events
  - Deterioration time
  - Interventions
Everglades Natl Park, FL
Behavioral indicators of physical abuse

- **Extremes** of behaviors
  - Withdrawn or aggressive
  - Polite or rude
  - Compulsively neat or messy
  - Obedient or resistant
  - Friendly/affectionate or hostile
  - Dependent or role reversal
Behavioral indicators of physical abuse

- Wary of adult contact/touches
- Complains of soreness, moves uncomfortably
- Refuses to go home
- Poor self-esteem, self-destructive
- Antisocial, runaway, delinquent
Observations

- Hostile parent/child or parent/parent interactions
- Child fearful of caretaker
- Caretaker too defensive or aggressive
- ? Caretaker covering up
Physical Indicators of Physical Abuse

- Unexplained !!!
  - Bruises/welts/burns
  - Fractures/dislocations
  - Brain injuries/SDH/RH
  - Internal organ injuries
- Delay in seeking medical help for injuries
Recognizing Abuse

• Inconsistency in description of injury
  (type, severity, age, mechanism)
• Inconsistency in developmental level of child
• Injuries typical for inflicted injury
• Injuries with no history
• Patterned injuries
• Multiple injuries at various stages of healing
Samaria Gorge Ntl Park, Greece
DIAGNOSTIC WORK-UP

Physical Abuse/Neglect

- Skeletal survey: A must < 2 y/o
  - Humeri-upper arms (AP)
  - Forearms (AP)
  - Hands (Oblique, PA)
  - Femurs-thighs (AP)
  - Tibiae/fibulae - shins (AP)
  - Feet (AP)
  - Chest (AP & lateral, if suspicious oblique)
DIAGNOSTIC WORK-UP

Physical Abuse/Neglect

• Skeletal survey:
  • Pelvis + mid & lower lumbar spine (AP)
  • Lumbar spine (Lateral)
  • Cervical spine (Lateral)
  • Skull (Frontal & lateral, if suspicious oblique)
• In suspicious spots, repeat film with coning and restriction to specific area
• Repeat skeletal survey in 10-14 days
Yosemite Ntl Park, CA
DIAGNOSTIC WORK-UP

Physical Abuse/Neglect

- Head CT in acute head trauma
  - First week of injury
  - No contrast
- MRI in subacute/chronic phase
  - Follow up of acute injuries
  - Growing head circumference
CT images
MRI images
DIAGNOSTIC WORK-UP

Physical Abuse/Neglect

• Chest/abdomen CT
  • Chest, abdomen injuries
  • Child with abusive head trauma in coma
• Blood count and coagulation studies
  • CBCC, PLT, PT, PTT, Von Willebrand Panel
  • Child with bleeding, bruising
Behtesgaden Ntl Park, Germany
DIAGNOSTIC WORK-UP
Physical Abuse/Neglect

- U/A, urine/hair drug testing, electrolytes, liver, kidney & pancreas functions tests
  - Head, chest, abdominal trauma
  - Excessive soft tissue bruising
- Metabolic tests when metabolic disease ?? (Type I Glutaric aciduria)
- Ophthalmology consult for eye exam
DIAGNOSTIC WORK-UP
Physical Abuse/Neglect

• Genetics consult for genetic conditions
• Serum proteins, stool & urine tests for infections, lead, drug screening
  • Failure to thrive
• Developmental assessment
• Nutritional assessment
SUSPICIOUS Bruises

- Too many, too big in too young
- Bruises in protected areas
- Patterned bruises
- Black eyes without history
- Bite marks
- Bruises of various ages on body sites with similar structure
Bruises suspicious for abuse

• **TEN-4**
  - Torso, ears, neck injuries on a child < 4 y/o
  - Any bruise on a child less than 4 m/o

Pierce et al. *Bruising Characteristics Discriminating Physical Child Abuse From Accidental Trauma.* *Pediatrics* 2010;125;67-74
Common sites for accidental bruises

Suspicious bruises

Topography of Bruises
Fresh & old rib fractures
DIAGNOSTIC INTERPRETATIONS OF PHYSICAL ABUSE FINDINGS

HISTORY

Caretaker

DEVELOPMENT

Child

MECHANISM, EXTENT

Injury
• He may fall off this couch: **supervision neglect**
• It doesn’t lead to coma: Not enough acceleration and angular velocity
• A bruise or two, extremity or skull fracture possible
  • Anything else, think **physical abuse**
• She may fall off this bunk bed: **supervision neglect**
• Unlikely to lead to coma: Not enough acceleration and angular velocity
• In addition, focal SDH, SGH possible
  • Anything else, think **physical abuse**
Post-consultation procedures

- SW schedules a multidisciplinary meeting in 48-72 hours at PICU:
  - Hospital staff: CPT Clinician, SW, PICU Dr, radiologist
  - Community agency staff: SW from Child Protection Services, police officer, prosecutor
  - In select cases: Ped. Neurosurgeon, Ped. Neurologist, Ophthalmologist, Ped. surgeon, Orthopedist, Geneticist may be invited
Summary

• Child abuse and neglect requires a high index of suspicion focusing on behavioral/physical indicators and history.

• Skeletal survey, head CT, abdominal/chest CT, MRI and other plain X-rays are helpful imaging tools in diagnosing physical abuse

• Other tests performed on blood, urine, stool, hair, meconium, cord blood may be used to diagnose/rule out abuse/neglect.
References

- Woodman et al. 2010, Screening injured children for physical abuse in ED. Child Care Health Dev, 36(2):153-64.
FROM 0 TO BARNAHUS – SAVE THE DATES FOR THE UPCOMING WEBINARS

Medical evaluation – a key criteria for the Barnahus and similar setups
• 19 Nov 2018 – Sexual abuse diagnostic workup and decision-making

SUBSCRIBE TO THE NEWSLETTER AT BIT.LY/PROMISENEWSLETTER
FIND THE PUBLICATIONS AND MORE AT WWW.CHILDERNATRISK.EU/PROMISE

CO-FUNDED BY THE EUROPEAN UNION