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2025

Recognizing Child Abuse in the Primary Care Setting

Dr. Joyce Gilbert

Objectives

1. Improve the primary care provider's understanding about when to be concerned about possible inflicted trauma.
2. How to proceed when this concern is validated.
3. Work-up for suspected inflicted trauma.
4. Local resources.
5. State-wide support.

Statistics

Overview Maltreatment Information										
Category	**Number**					**Rate**				
Year	**2018**	**2019**	**2020**	**2021**	**2022**	**2018**	**2019**	**2020**	**2021**	**2022**
Children subject of an investigated report alleging child maltreatment	46,131	49,174	47,375	43,474	45,834	27.8 per 1,000	29.6 per 1,000	28.3 per 1,000	26.2 per 1,000	27.8 per 1,000
Total child maltreatment victims	4,498	4,222	3,967	3,487	3,389	2.7 per 1,000	2.5 per 1,000	2.4 per 1,000	2.1 per 1,000	2.1 per 1,000
Child Fatalities	28	25	14	19	31	1.7 per 100,000	1.5 per 100,000	0.8 per 100,000	1.1 per 100,000	1.9 per 100,000

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Sentinel Injuries

Defined by the American Academy of Pediatrics in 2013 as:

An inflicted injury that is potentially minor or not obvious, seen by medical personnel or parents, but not recognized as abusive. These are most common in young infants.

Sentinel Injuries

- Previous sentinel injuries are common in abused infants
  but rare in those not abused
  - -25% of physically abused infants had a sentinel injury
  - -33% of infants with AHT had a sentinel injury

- These sentinel injuries are bruises, intraoral injuries, fractures or burns

- Identifying physical abuse is challenging
  - -Witnesses are uncommon
  - -Adult does not admit to abuse
  - -Child is too young, scared or injured to disclose abuse
  - -Injuries may be nonspecific

Definitions

- **Bruise**: requires moderate to severe force, breakage of blood vessels in the subcutaneous area (under the skin) and then leakage of the blood through the epidermis (skin) to be visible as a bruise.

  FORCE and TIME

Age of bruise cannot be determined accurately, petechiae can be dated

- **Development** during the first year:

  Birth-2 months

  4 months

  6 months

  9 months

  12 months

History of Injury

- Ask the caregiver to describe in detail what occurred
- Allow narrative without interruptions, clarify questions at the end
- Ask about child's activity and responsiveness leading up to the injury
- Document descriptions of:
  - -Mechanism of injury
  - -Onset of symptoms
  - -Known developmental abilities

Concerns for Abusive Trauma

- Vague or no history for obvious injury
- Denial of trauma in a child with obvious injury
- Important detail of the explanation changes substantially
- The explanation is not consistent with:

  -the pattern
  -age
  -severity of the injury

  -the child's physical or developmental ability
- Significant delay in seeking medical treatment
- Explanation is markedly different from person to person

Specific Injuries- skin

- Bruises are common
  - -preschool and school aged children
  - -Knees, shins, forehead
- Bruises are the most common sentinel injury in 50% of fatal and near fatal trauma
  - -Head and face are the most common sites in **abused** children
  - -Bruises are rare in pre-mobile children
  - -**Those who don't cruise rarely bruise—Dr. Naomi Sugar**
  - -**TEN-4 FACES-P: T**orso, **E**ars, **N**eck, <4 years of age; **F**renulum, **A**ngle of the jaw, **C**heek, **E**yelids, **S**clera, **P**atterned injuries
  - -**Any bruises, anywhere if <4 months of age**

TEN-4-FACESp

Bruising Clinical Decision Rule for Children < 4 Years of Age

When is bruising concerning for abuse in children < 4 years of age?
If bruising in any of the three components (Regions, Infants, Patterns) is present without a reasonable explanation, strongly consider evaluating for child abuse and/or consulting with an expert in child abuse.

REGIONS

TEN

Torso | **E**ars | **N**eck

FACES

Frenulum
Angle of Jaw
Cheeks *(fleshy part)*
Eyelids
Subconjunctivae

INFANTS

4 months and younger

Any bruise, anywhere

PATTERNS

Patterned bruising

Bruises in specific patterns like slap, grab or loop marks

See the signs

Unexplained bruises in these areas most often result from physical assault.
TEN-4-FACESp is not to diagnose abuse but to function as a screening tool to improve the recognition of potentially abused children with bruising who require further evaluation.

TEN-4-FACESp was developed and validated by Dr. Mary Clyde Pierce and colleagues. It is published and available for FREE download at **luriechildrens.org/ten-4-facesp**.

Ann & Robert H. Lurie Children's Hospital of Chicago

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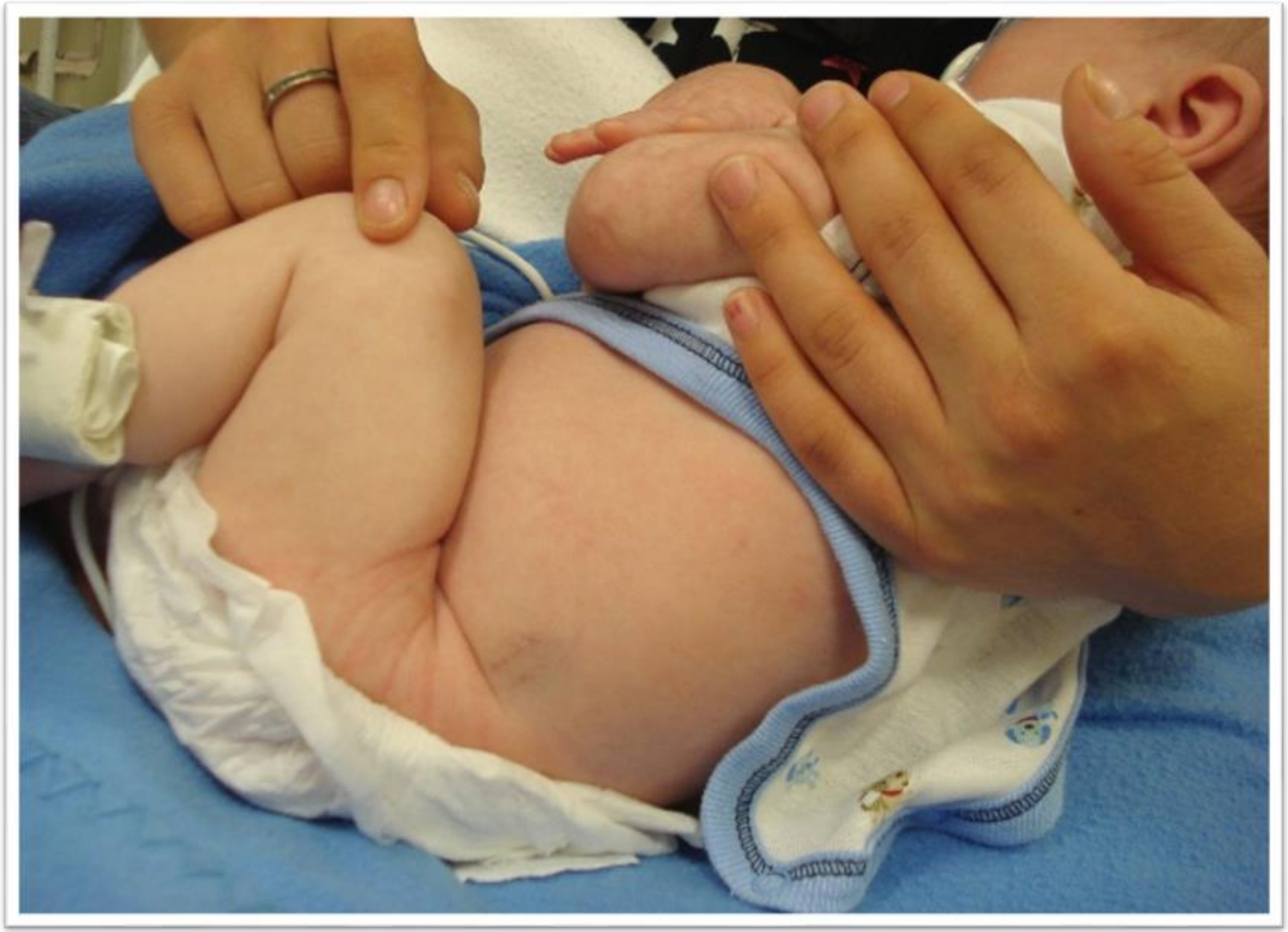

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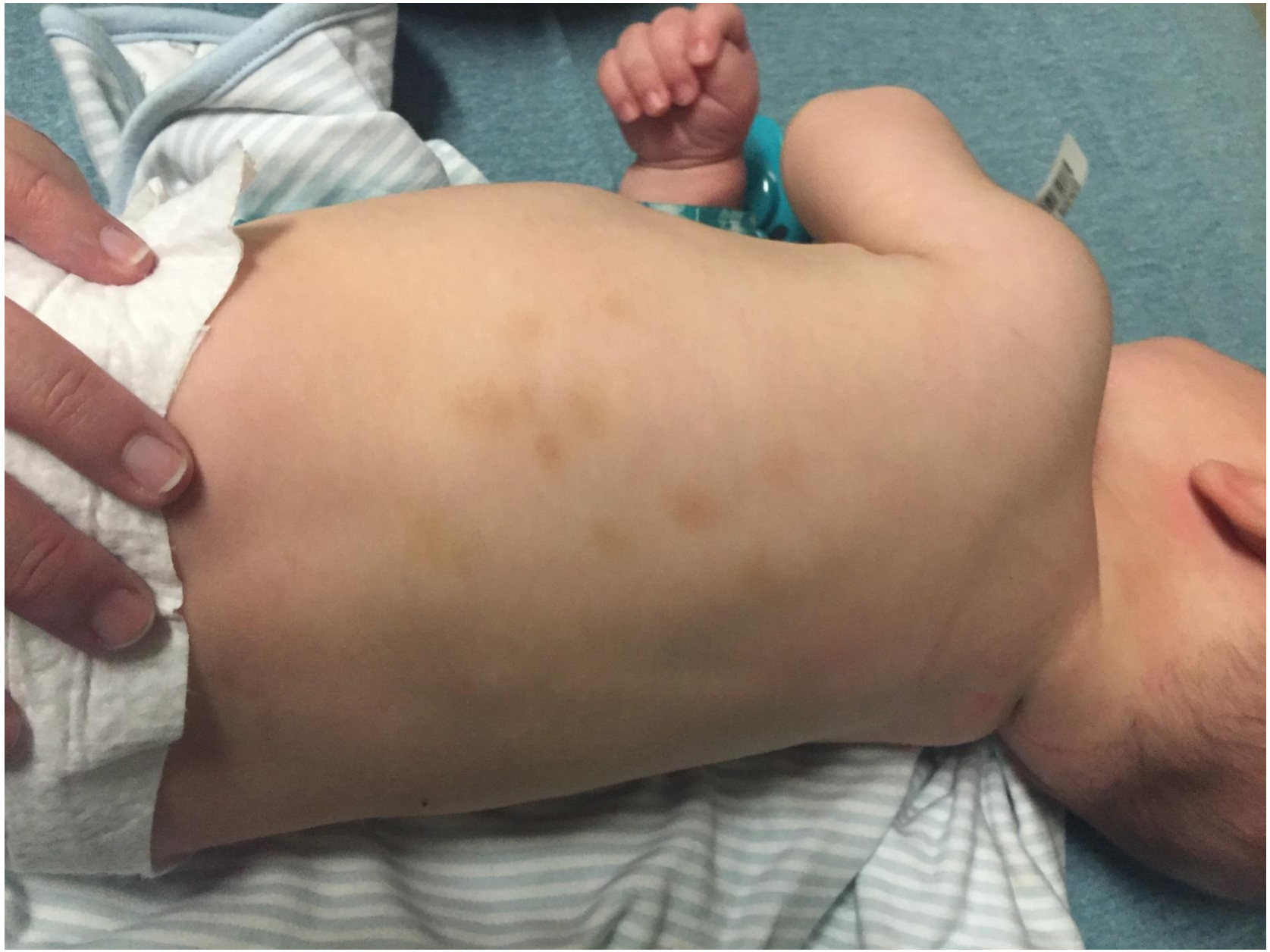

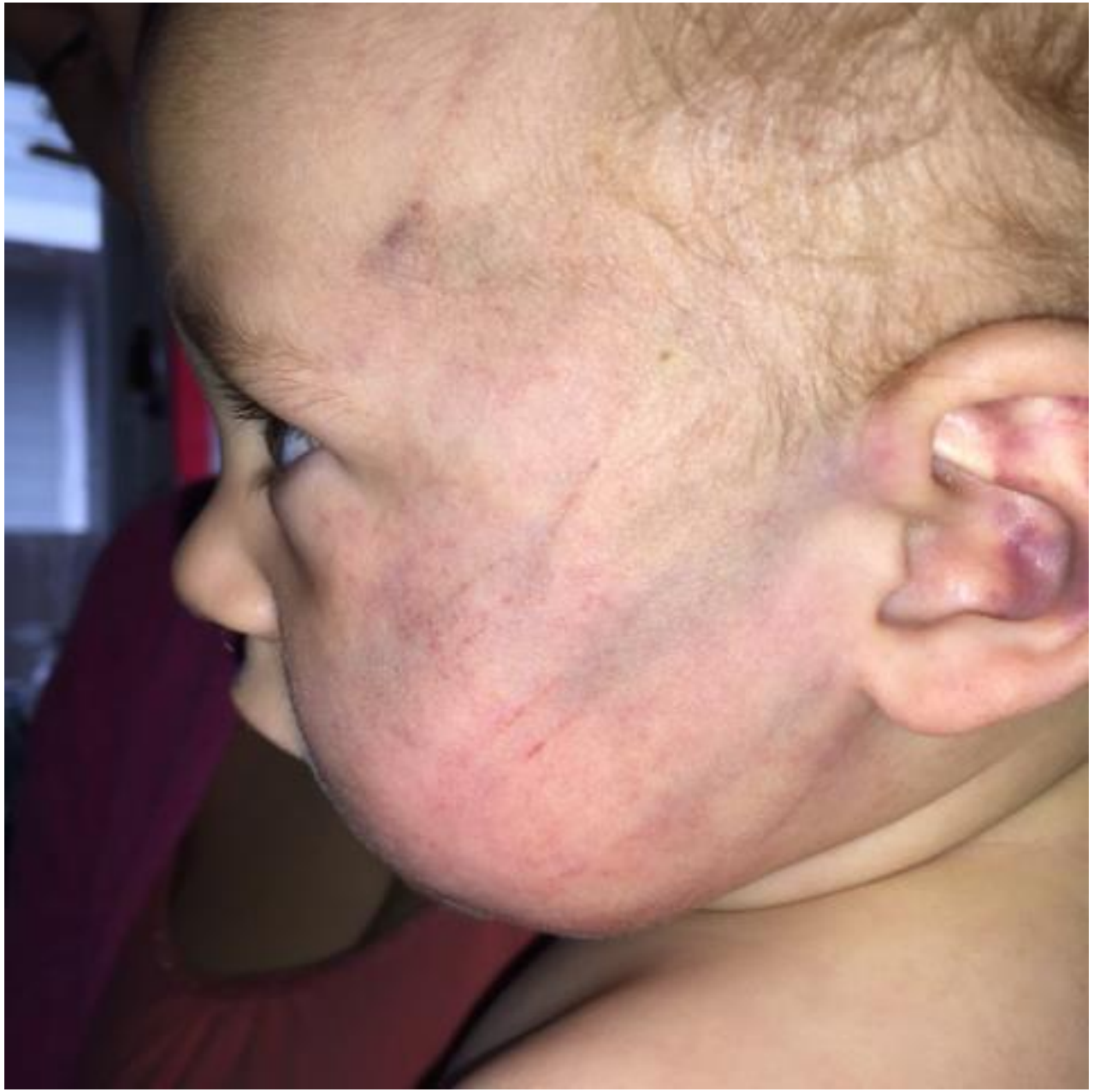

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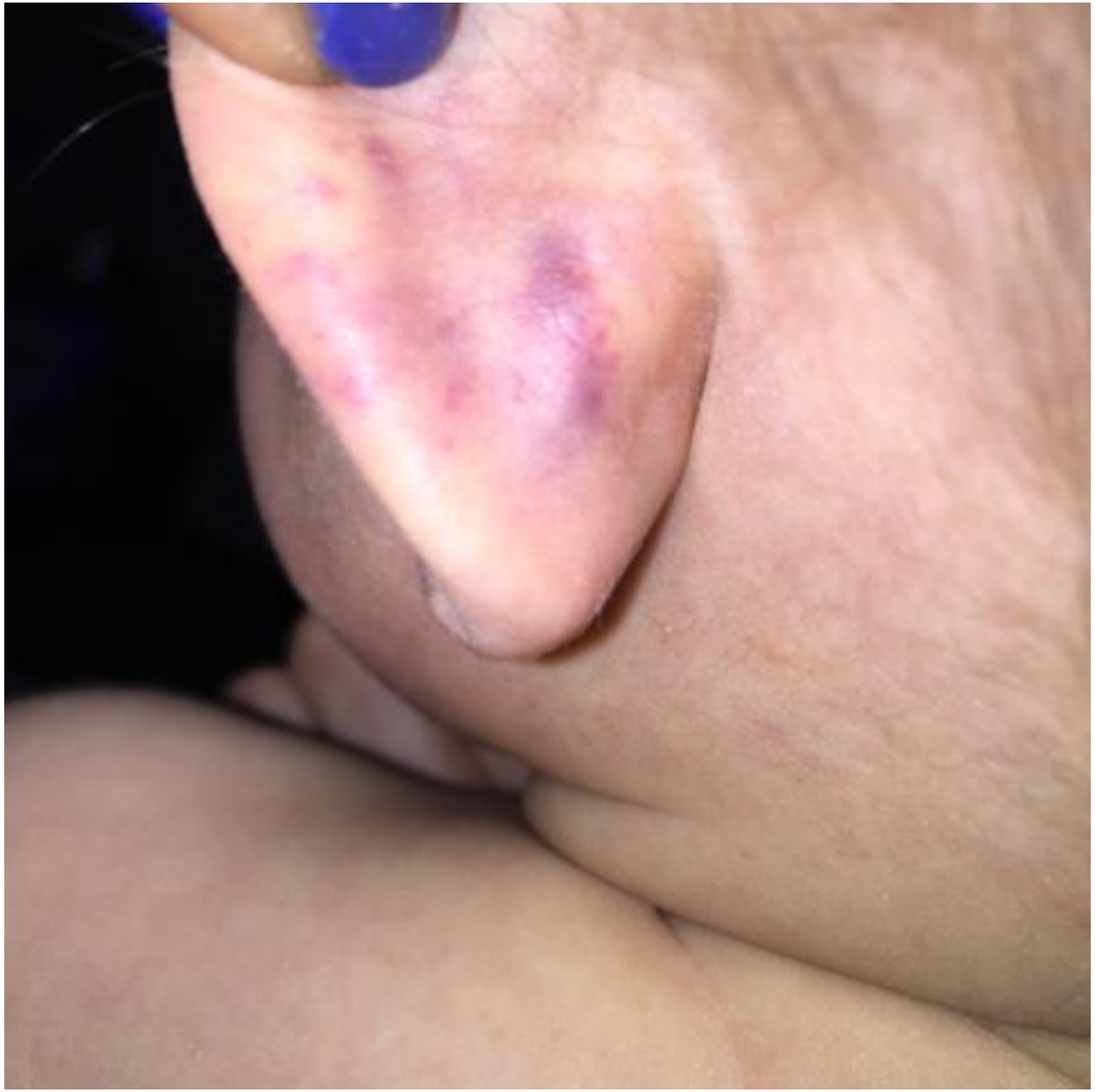

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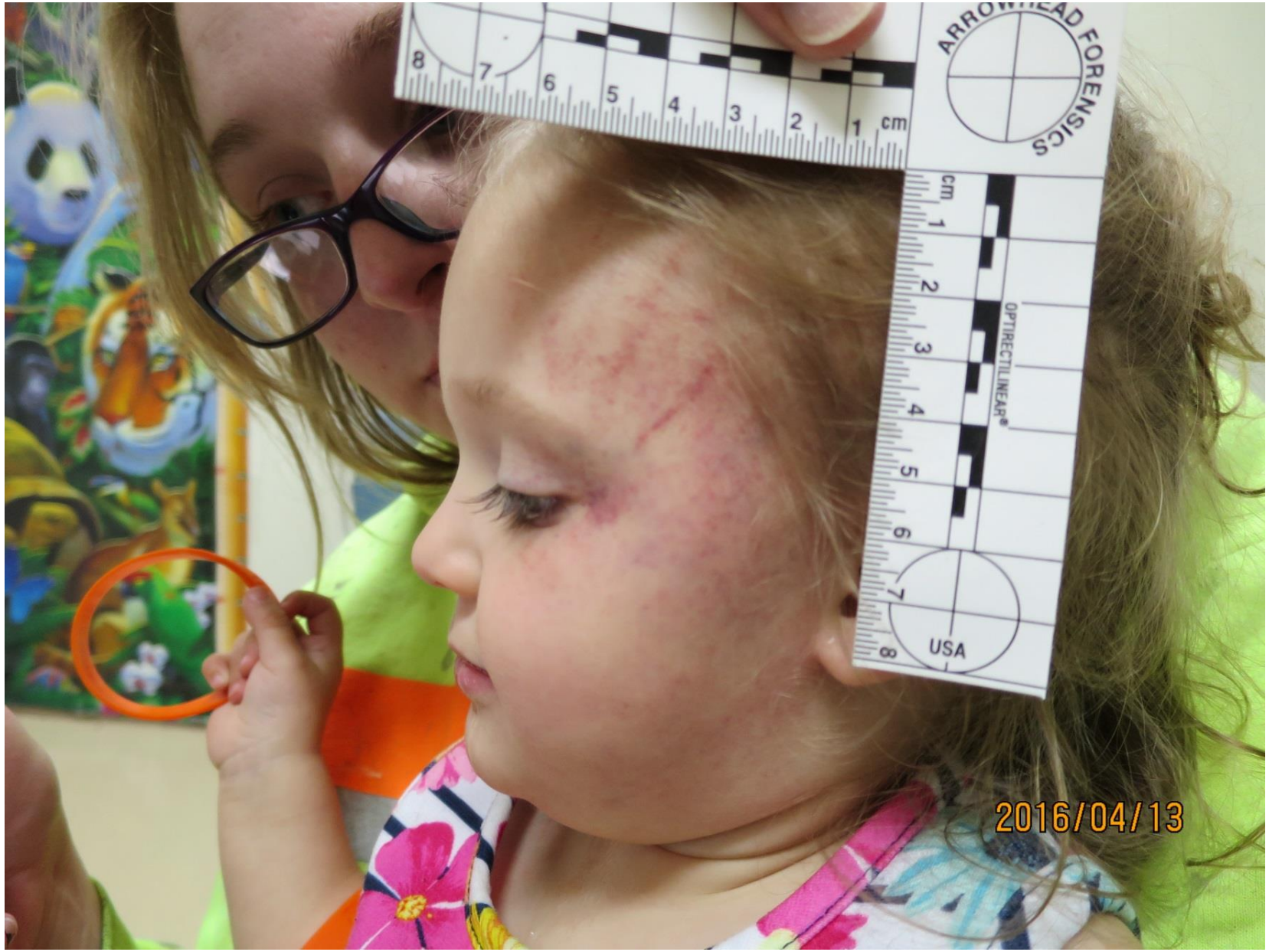

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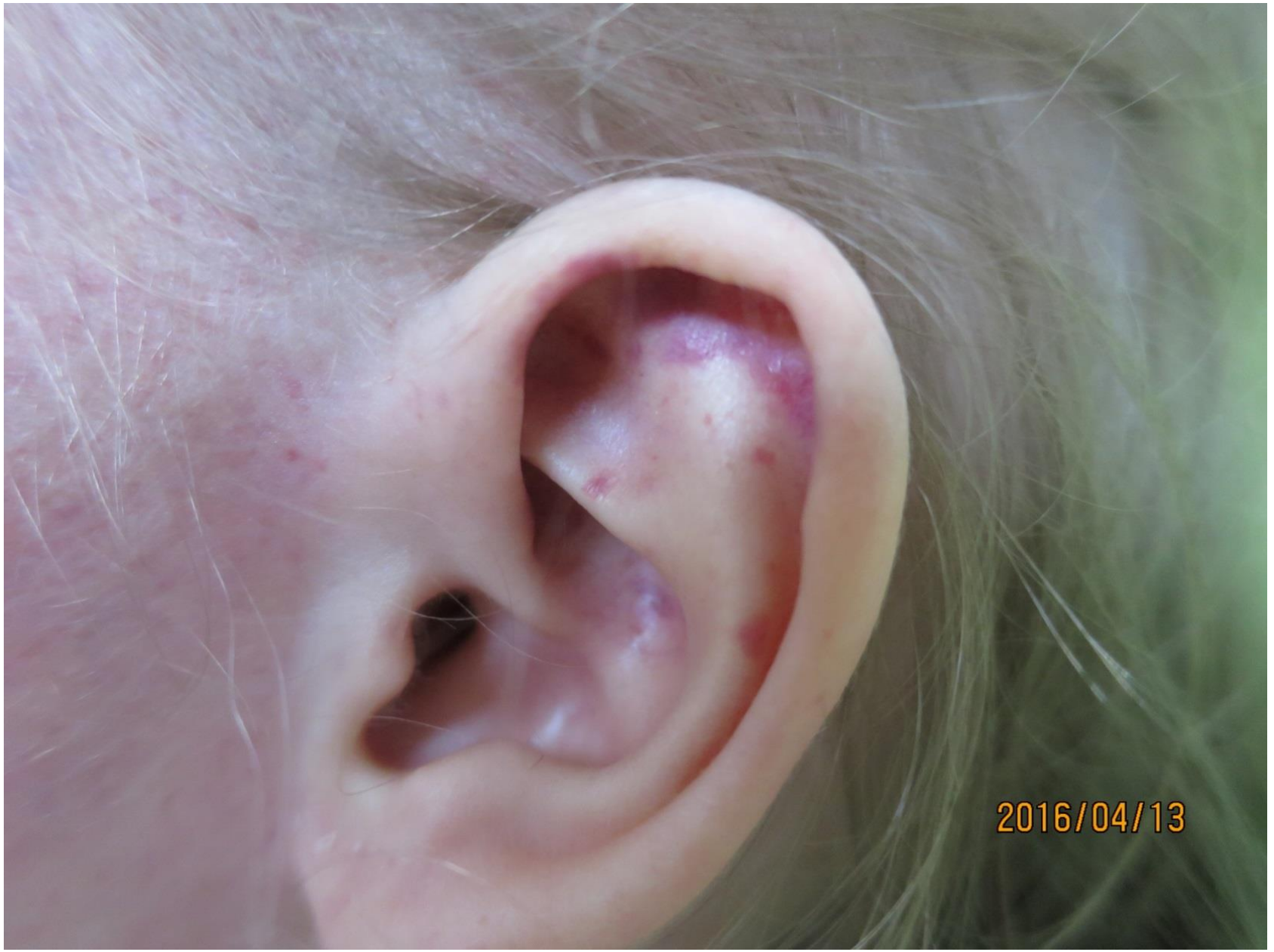

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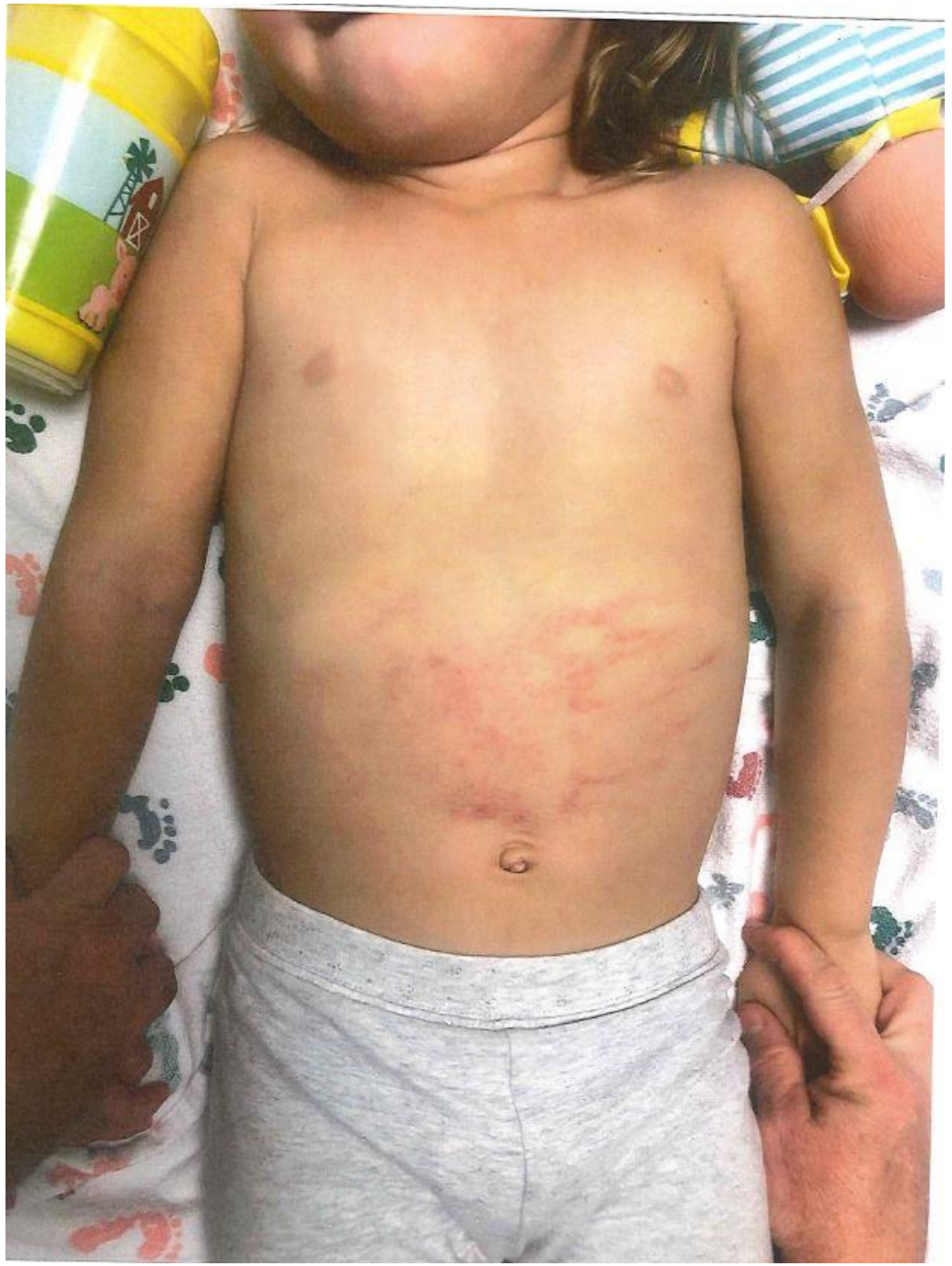
Patterned Bruise



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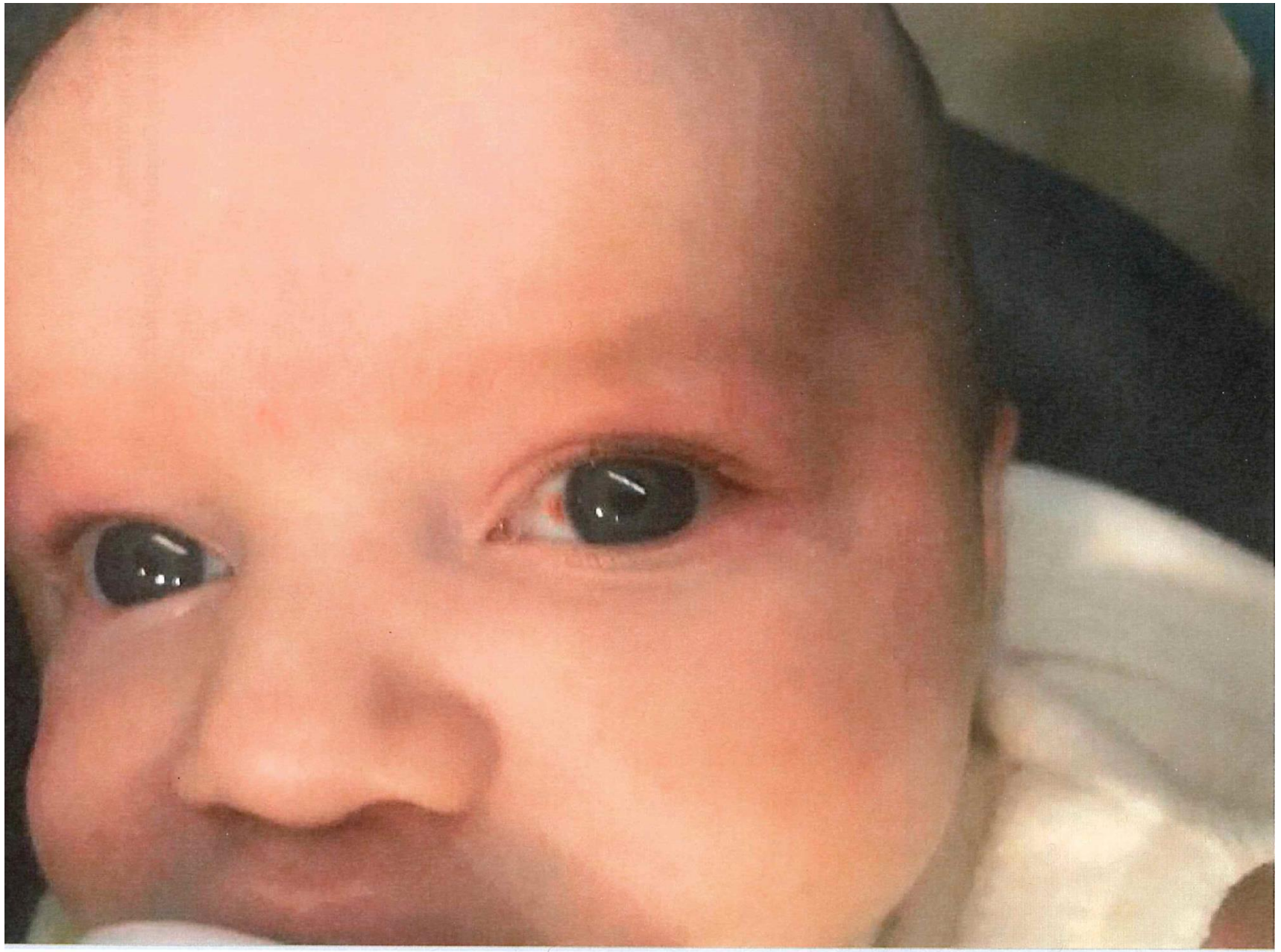
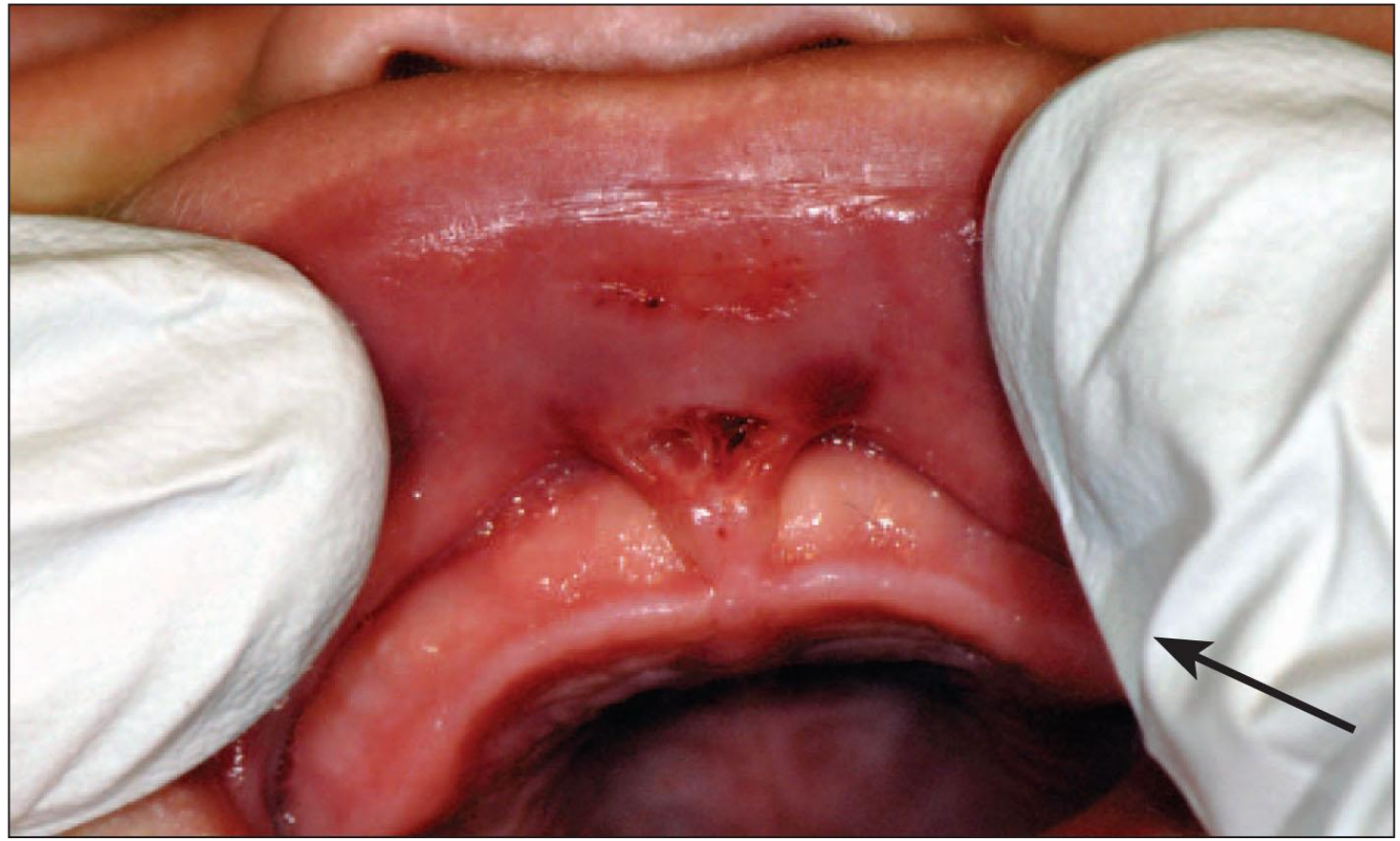
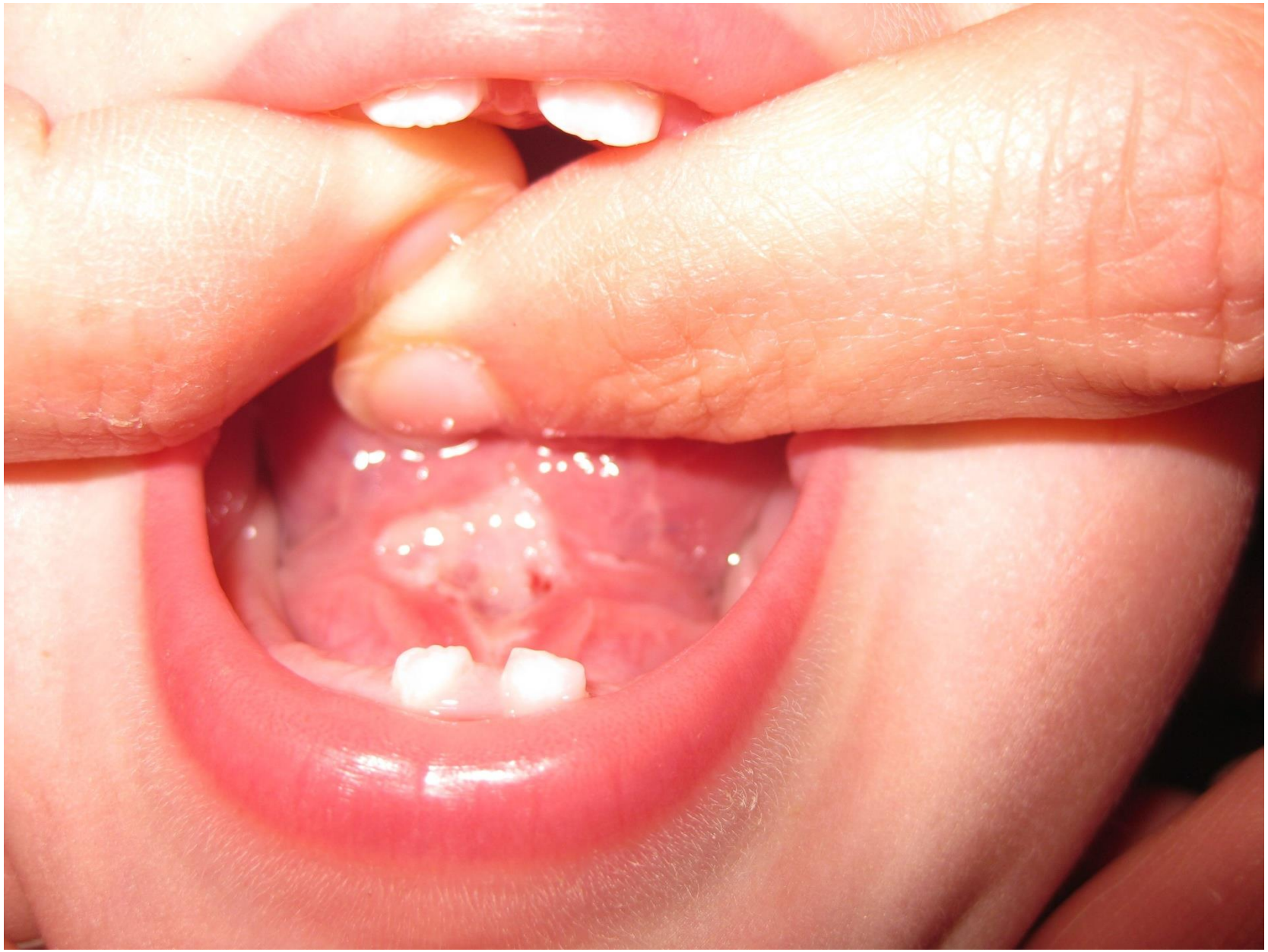




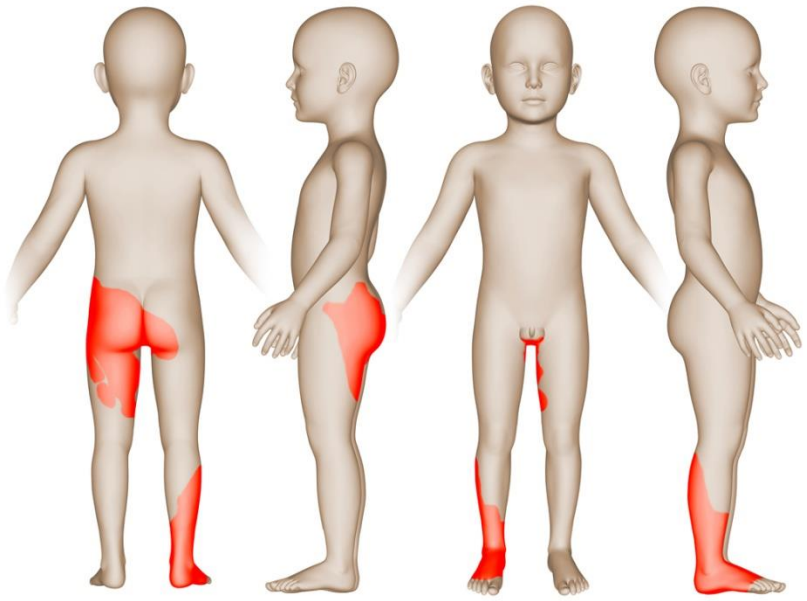


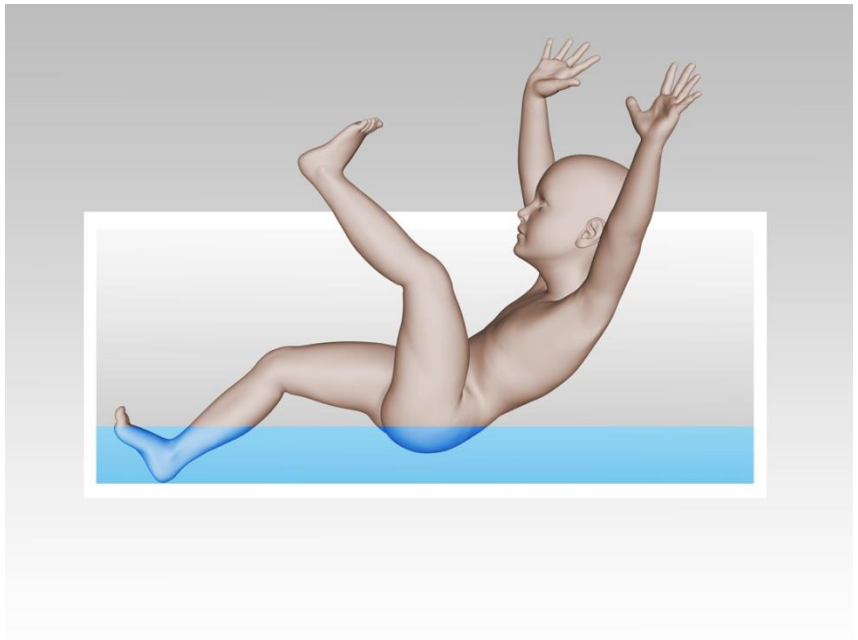
Specific Injuries-burns

- Burns are a common childhood injury
- Inflicted burns tend to be more severe
  - -Occur in younger children
  - -Delay in seeking medical care
- Immersion burns are the most common cause of traumatic burns requiring hospitalization
  - -Most commonly associated with soiling accidents and occur in toddlers or developmentally delayed
- Inflicted contact burns are usually deeper and leave a clear imprint of the burning instrument

2 year old
“got into the tub himself”

Investigation and Evaluation





Specific Injuries-fractures

- Most fractures in children are accidental trauma
- Abused infants or children may present with a fracture as a sentinel injury
- Abusive fractures have been described in almost every bone, and any single fracture can be accidental or abusive
- 85% of accidental fractures occur in children >5 years of age
- In contrast 80% of abusive fractures are in children <18 months of age

Specific Injuries-fractures

Think abuse in the following situations:

- Non-ambulatory child, with or without a good history for trauma
- Multiple fractures
- Rib fractures
- Midshaft humerus or femur fractures
- Unusual fractures without history of severe trauma:
  - -Scapula
  - -Vertebrae
  - -Sternum
  - -Classic metaphyseal lesions
- The history does not match the fracture (spiral fracture requires a twisting mechanism)

Sentinel Injury

- **Bruises in pre-mobile infant**
- **Ear bruises**
- **Patterned bruises**
- **Frenulum tears**
- **Patterned burns**
- **Burns with delay in medical care**
- **Specific fractures**
- **Fractures in child <12 months**

NAT evaluation

Non-accidental trauma (NAT) ED flow sheet

A. THINK **NAT** with the following:
   a. **History inconsistent with injury, delay in seeking care, DV in home, recent ED visit, preterm or IUGR, chronic medical condition, developmental delays**
   b. **PE: torn frenulum, FTT, patterned bruises, any bruise anywhere in nonmobile infant (<4 months), TEN-4 FACES-P**
   c. **Order Skeletal Survey for any child <2 years old with any of the above**
      i. **Red flags for possible NAT:** classical metaphyseal fractures (CML), rib fractures, any fracture in non-ambulating child, undiagnosed healing fractures, multiple fractures, SDH or SAH in child <1 year
      ii. Follow up SS in 10-14 days
   d. **Order labs:**
      i. CBC, PT/PTT/INR, CMP, lipase/amylase, UA
      ii. Add Phos, Ca, PTH, and Vit D if fractures are found
   e. **Order head CT (no contrast/no sedation):**
      i. **<6 months** old with any findings of abuse
      ii. Bruising to face or head and **<12 months old**
      iii. Neurologic symptoms and **<12 months old**—includes fussiness and vomiting not otherwise explained
   f. **Order abdominal CT:**
      i. Signs or symptoms of abdominal trauma
      ii. AST and ALT >80

B. SW consult, CPS referral if NAT seriously considered, LE if crime has been committed

Local resources

- Seattle Children's SCAN consult: **206-987-2194**
  - Skeletal survey—follows American College of Radiology standards, 21-29 films
  - Blood work:
    - Bleeding—CBC, PT/PTT/INR
    - Bone—Calcium, Phosphorus, Vit D, PTH
    - Belly—AST, ALT, lipase, UA
  - Head CT, non-sedated, non-contrast
  - Abdominal CT with contrast

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- Child Protector App: This free app was developed by Children’s Mercy Kansas City and the University of Texas Health Science Center (San Antonio) through Children’s Justice Act Funding from Texas and Missouri.
- Futures Without Violence, order free brochures, cards