RSS SESSION SIGN-IN SHEET

Pediatric Care Echo Series
Preparing Pediatric Patients for Critical Care Transport
July 20, 2017
Thomas B. Brazelton, MD, MPH
Stuart McVicar RRT, PF-C, CCEMT-P

RSS Global Objective(s): Assess pediatric trauma given the news skills and guidelines determined to be safe for children. Identify proper tool and standardized measurement practices to improve diagnosis and treatment of pediatric patients.

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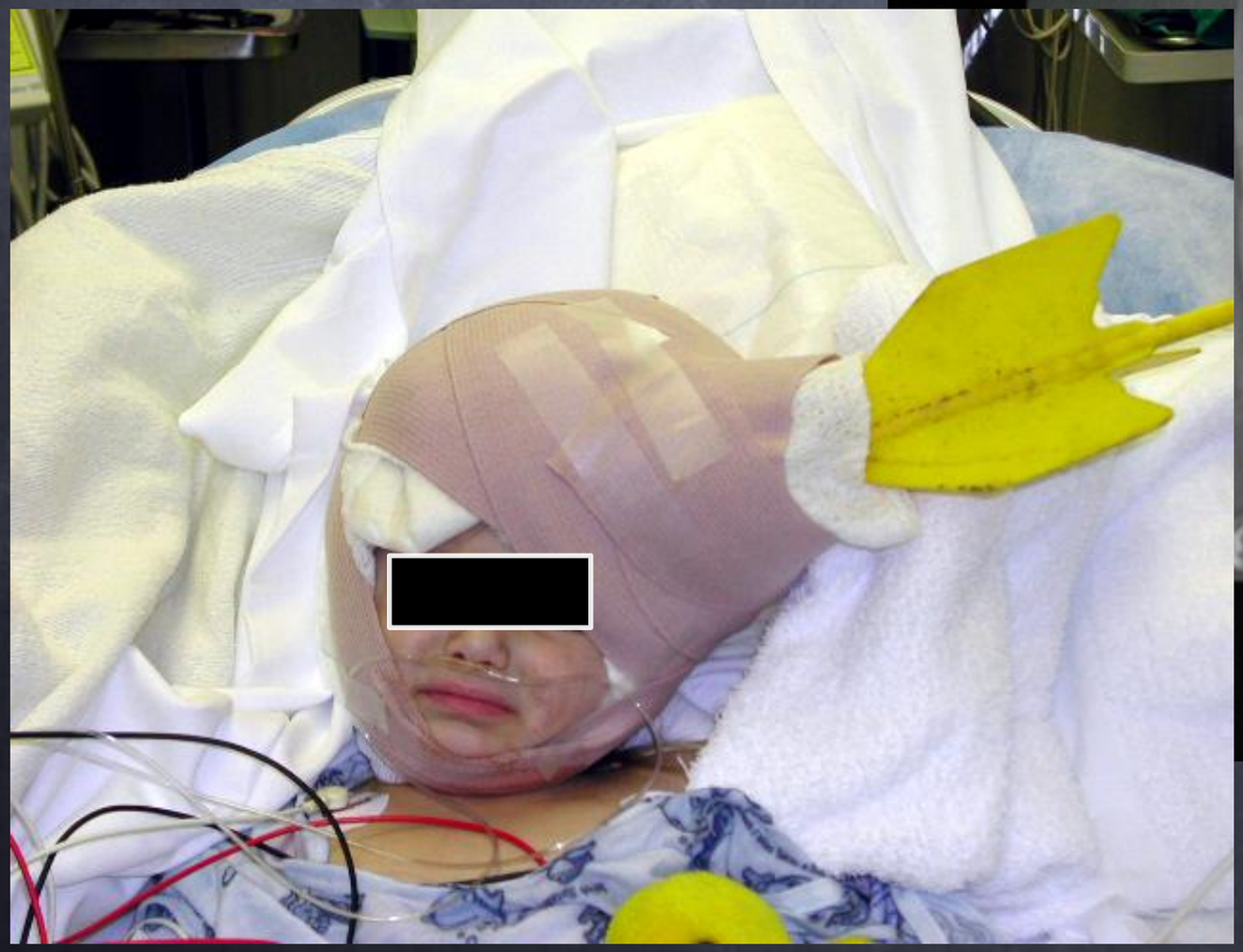
Preparing Pediatric Patients for Critical Care Transport

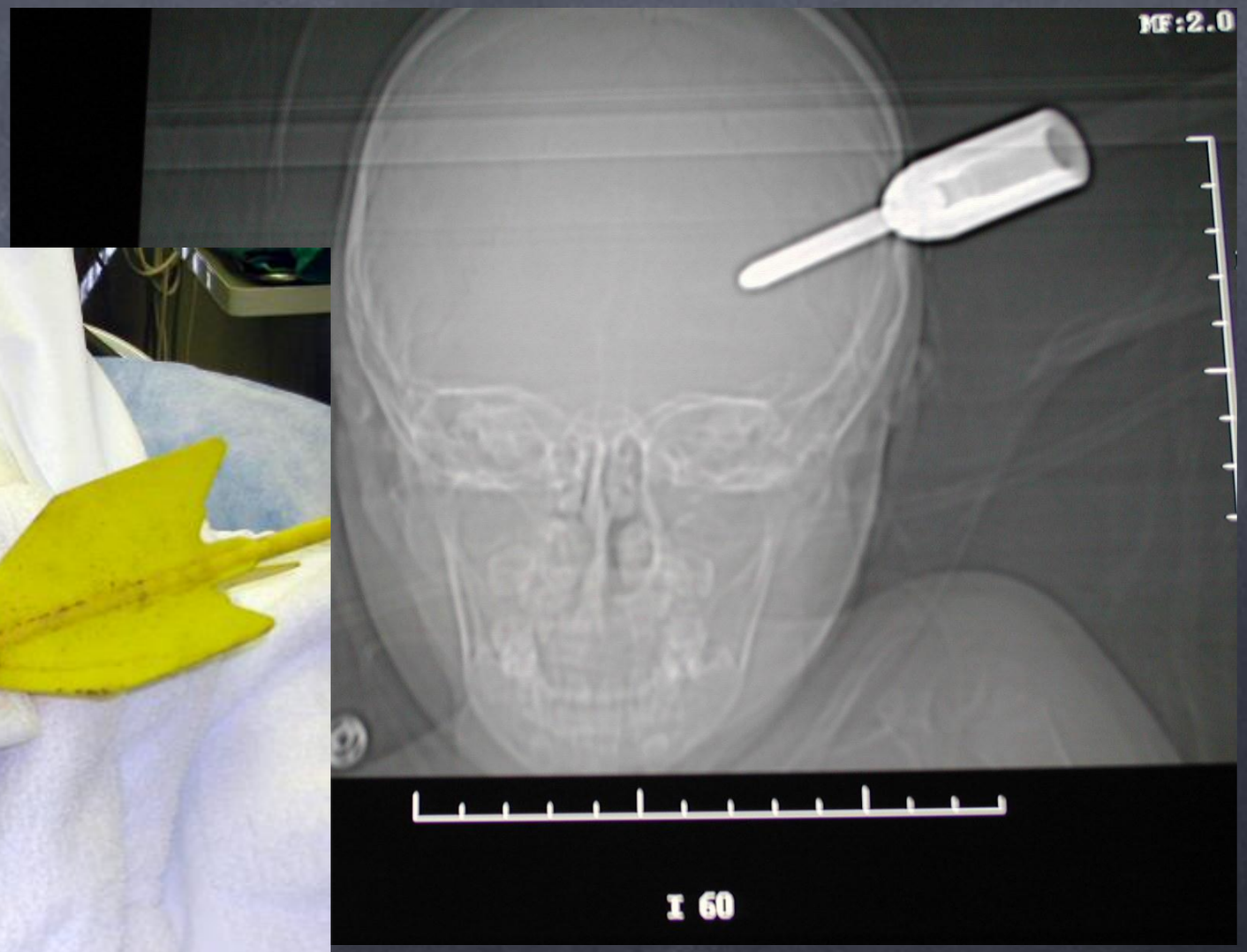
Tom Brazelton, MD, MPH

Stu McVicar, RRT, NRP, FP-C


GE FOR
EASON!

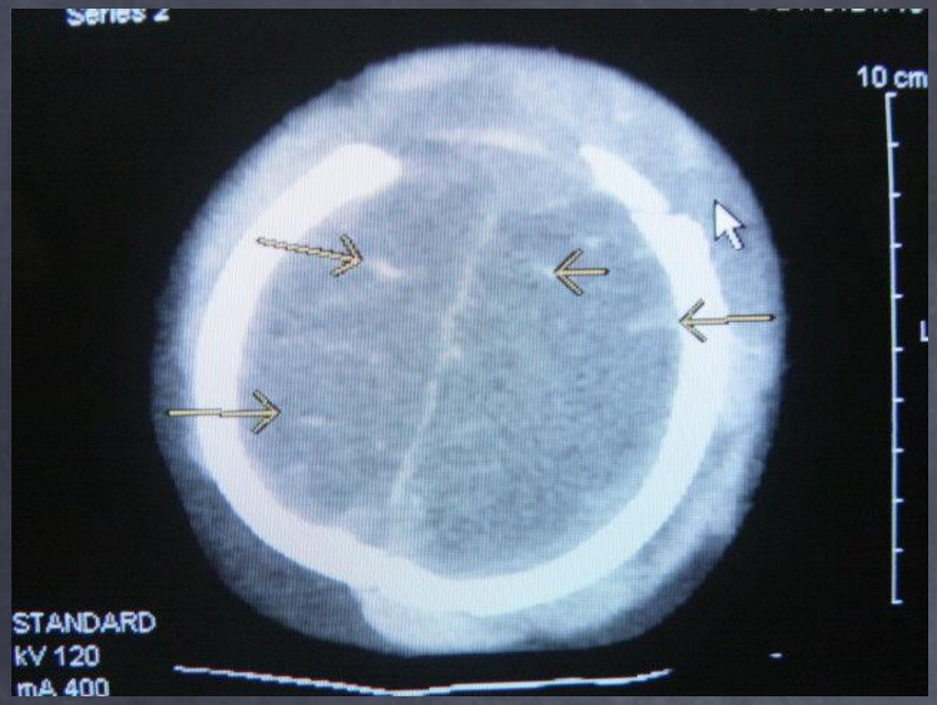
At some point in <u>every</u> physician's career, he/she will be involved in the medical transport of a sick or injured patient.





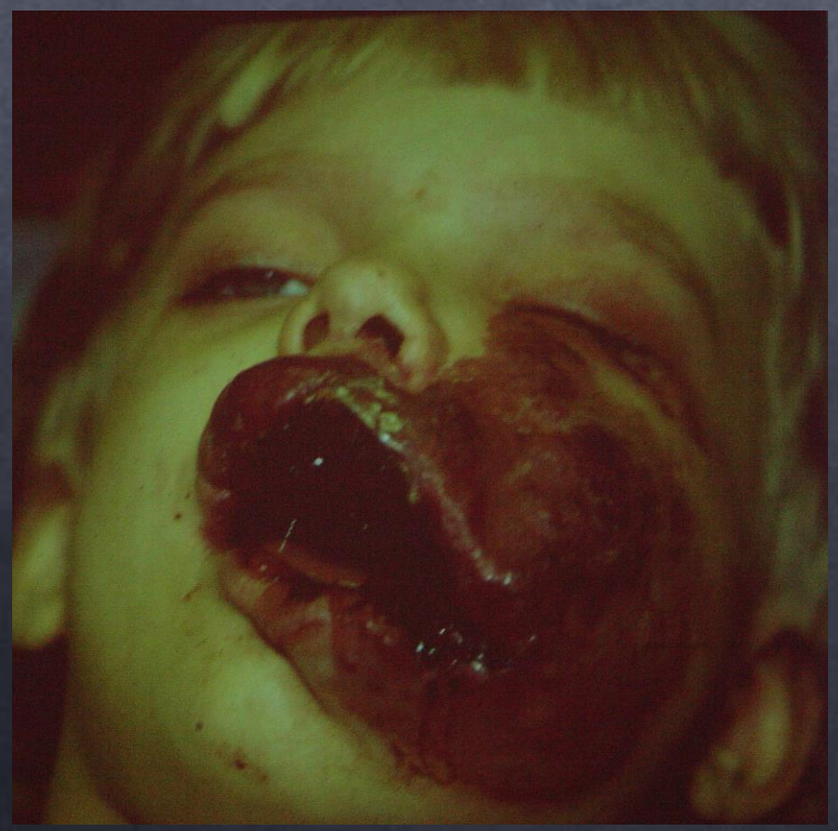
Pediatric critical illness and injury: the impact on the region and our responsibility

- Primarily rural communities
- Emergency medical services (EMS) and the “rural paradox”
- Resources for children are scarce:
  - Pediatric training
  - Pediatric equipment
  - Children’s hospitals
- Pediatric response to illness and injury
- Provider anxiety
- Treat or transport?



Referring M.D. Transport Decisions/Responsibilities

- How should the child be transported to the new facility?



– Mode
- Family car
- Ground ambulance
- Helicopter
- Fixed-wing aircraft

– Team
- Family
- Local EMS
- Referring hospital team
- Regional transport team
- Specialized pediatric transport team

Factors to consider when choosing a mode of transportation and team

1. Diagnosis and medical stability of the patient, including analysis of possible complications in his or her condition during the transport
2. Urgency to provide advanced medical care--include in the decision the time necessary to mobilize a medical team, estimated time of travel (both to and from) accounting for distance, terrain, weather and traffic
3. Level of medical care the patient is receiving versus the type of care the patient needs.
4. Methods of transport available

Goals of Transport

- To reach persons in need as quickly as possible with trained personnel
- To stabilize the patient's condition to prevent further deterioration
- To move the patient to a facility capable of providing more extensive care or additional services that will enhance patient outcome
- To offer the level of care equal to the receiving institution recognizing the limits inherent to traveling.

CHETA and Med Flight

- Pediatric expertise readily available
- Complements Med Flight: “weatherproof”
- Provides multi-level response: frees up a scarce resource for those in need
- Neonatal and Pediatric Intensive Care Units on wheels or wings
- Triage system for AFCH ED, NICU, PICU & wards
- Preserves local EMS resources
- Relieves community provider anxiety
- Continuity of care

Indications for Emergency Transport of Pediatric Patients

(Johnson & Gonyea, Mayo Clin Proc, 1993; 68:982-987)

- Respiratory--30%
- Neurologic--22%
- Trauma
  - Head--7%
  - Other--11%
- Cardiovascular--6%
- Other--24%

Adults:
Cardiac and trauma

We don’t know what we’re going to find on arrival!

Why is CHETA worth the wait?

- EMTALA rules governing interfacility patient transfers requires patient receive level of care through transport
- Potential for acute deterioration en route: very high rate of unplanned events and major interventions (Singh, 2013)
- Outcomes of general CCT teams vs specialty teams (Orr, 2009): unplanned events (61% vs 1.5%) and eventual death (23% vs 9%)
- Not a ”load ‘n go” philosophy but not a “stay and play” one either


SPEEDAIRE
2.5 Gallon Paint Tank
Réservoir À Peinture de 2.5 Gallons
Tanque de Pintura de 2.5 Galones
FLIGHT for LIFE
FLIGHT for LIFE

Assessment

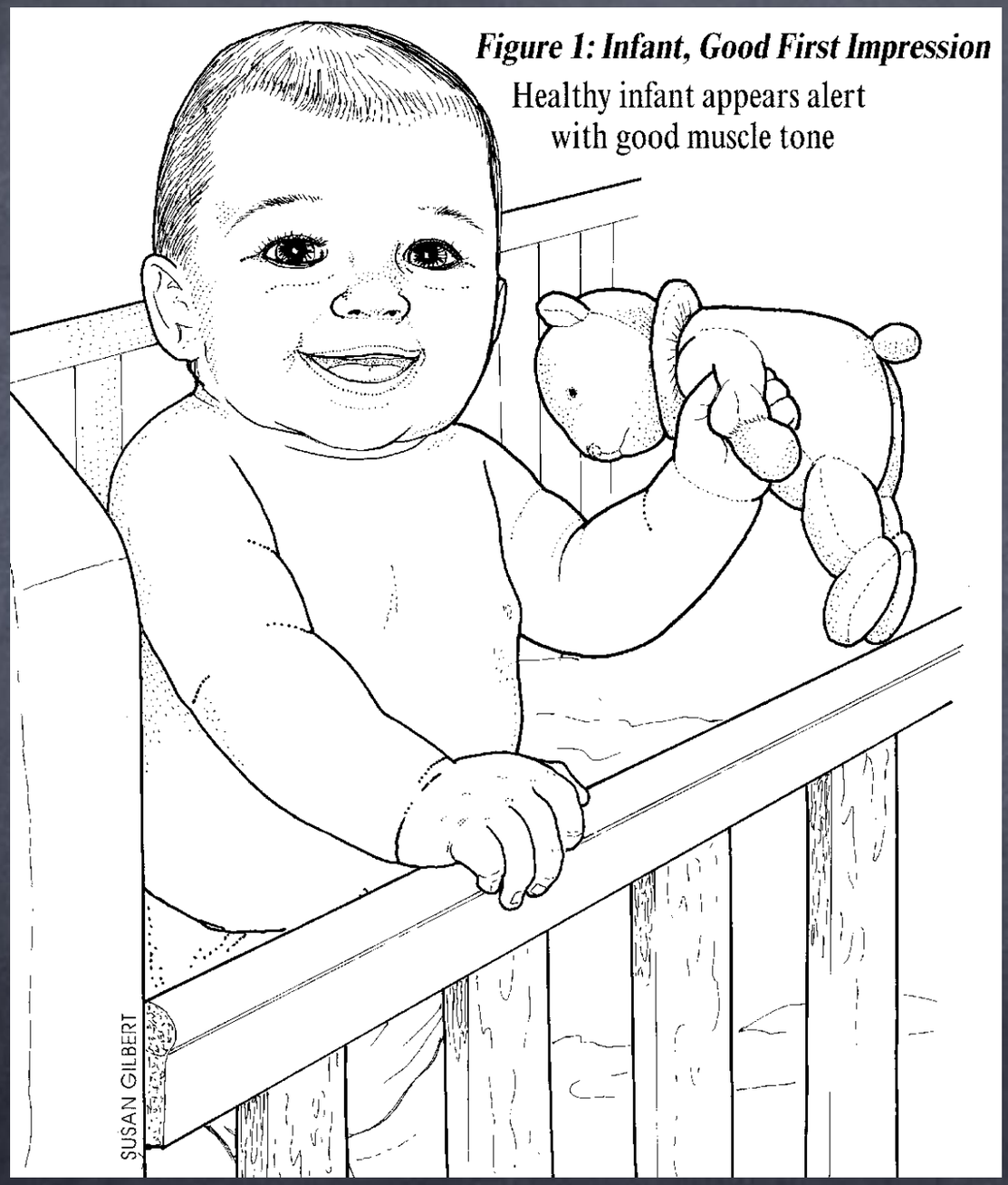
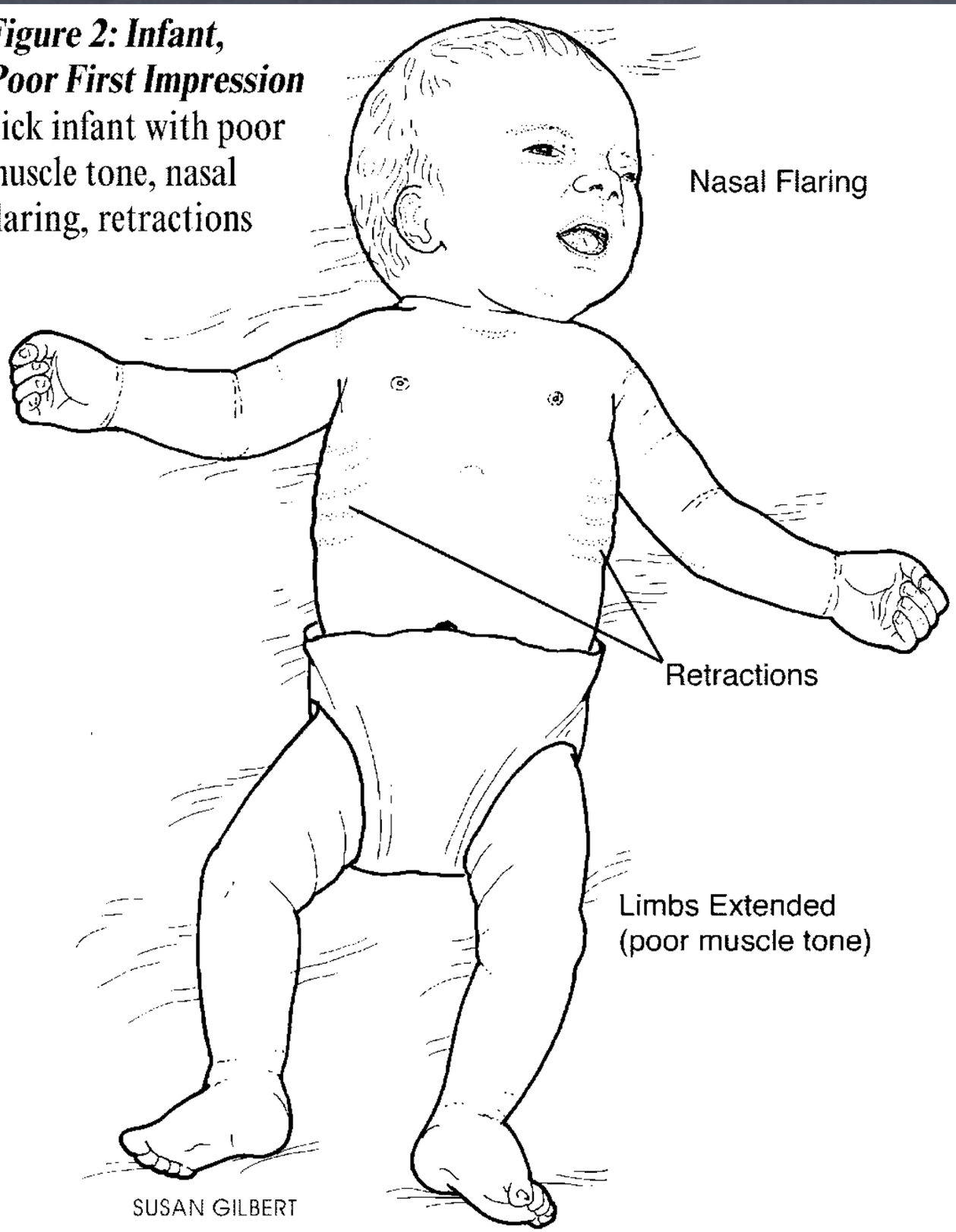


Figure 1: Infant, Good First Impression
Healthy infant appears alert
with good muscle tone
SUSAN GILBERT

Figure 2: Infant, Poor First Impression
Sick infant with poor muscle tone, nasal flaring, retractions



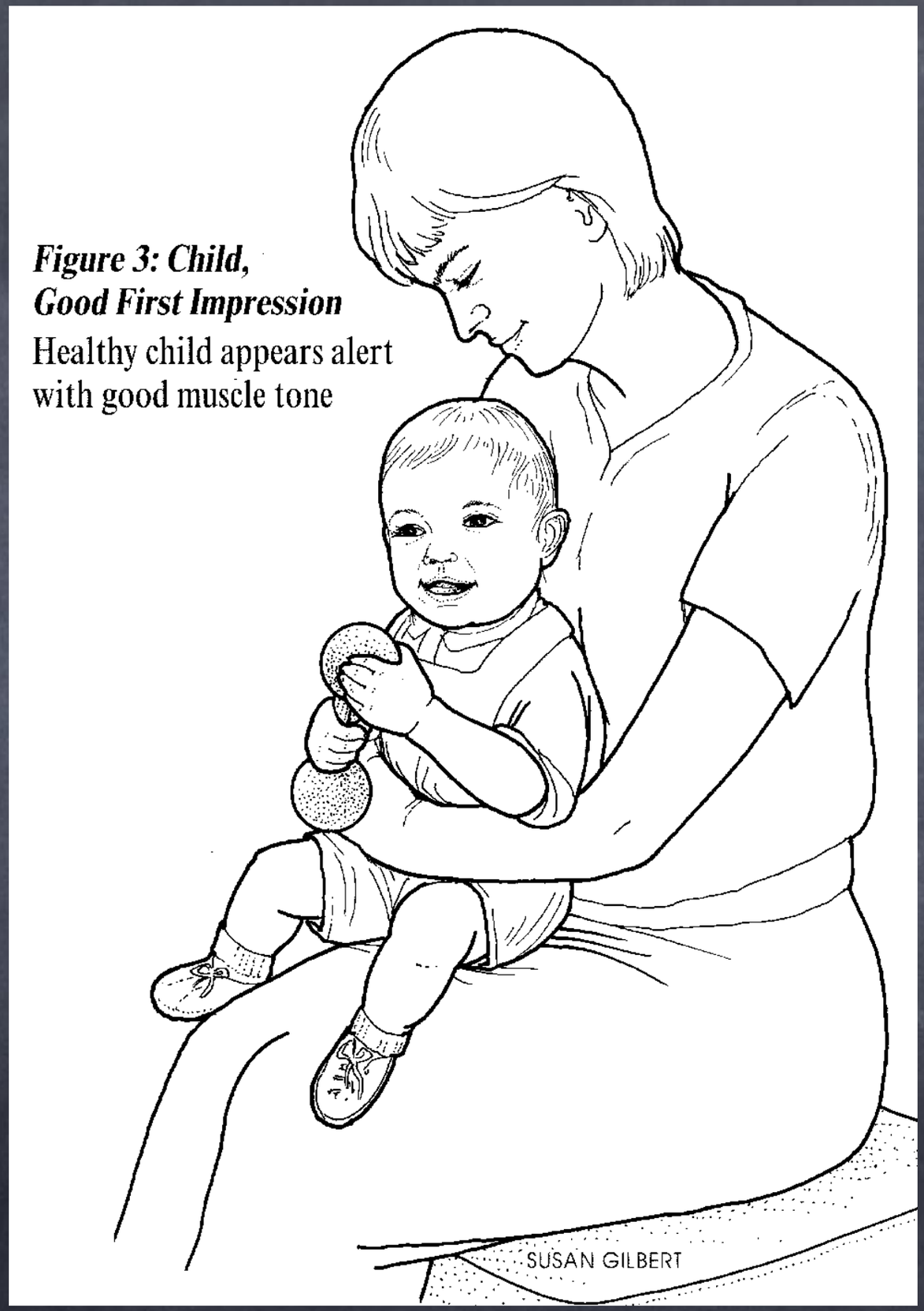


Figure 3: Child, Good First Impression

Healthy child appears alert with good muscle tone

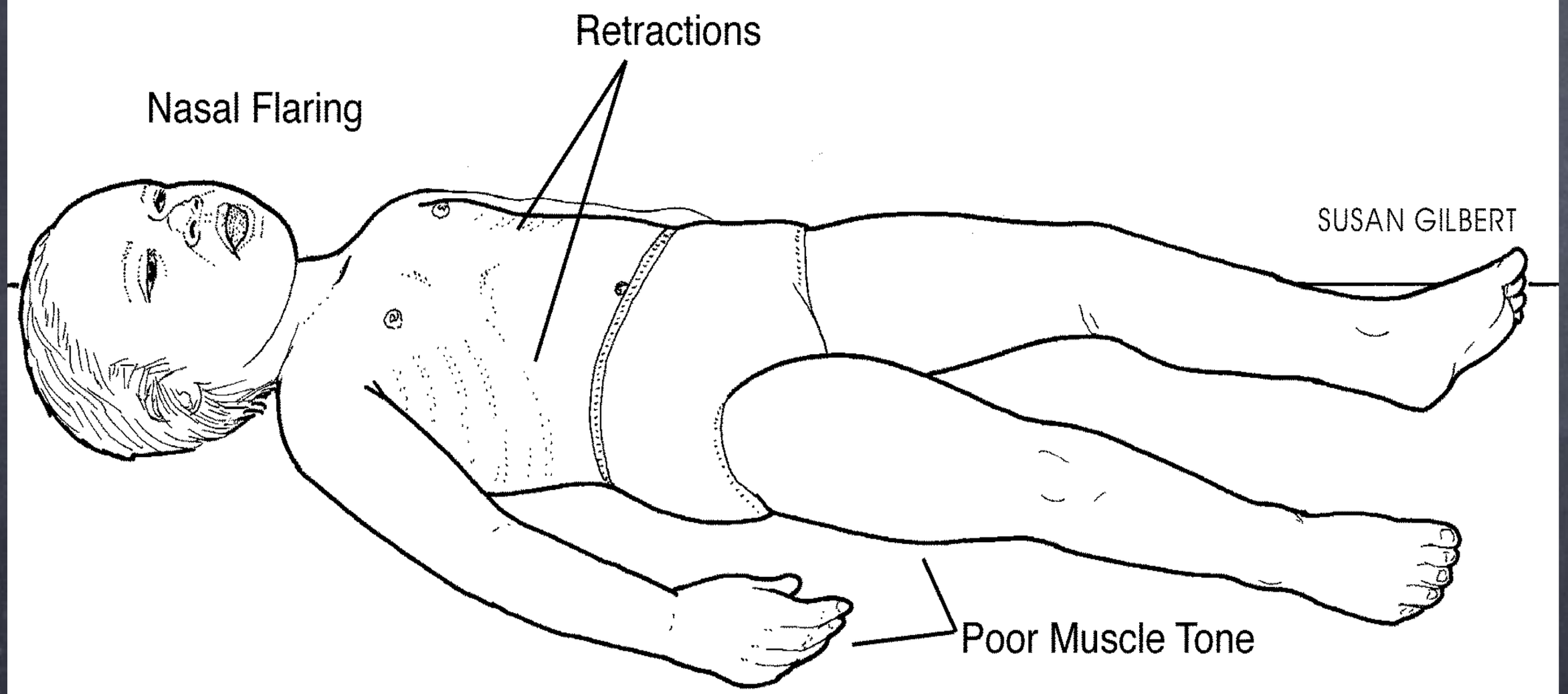
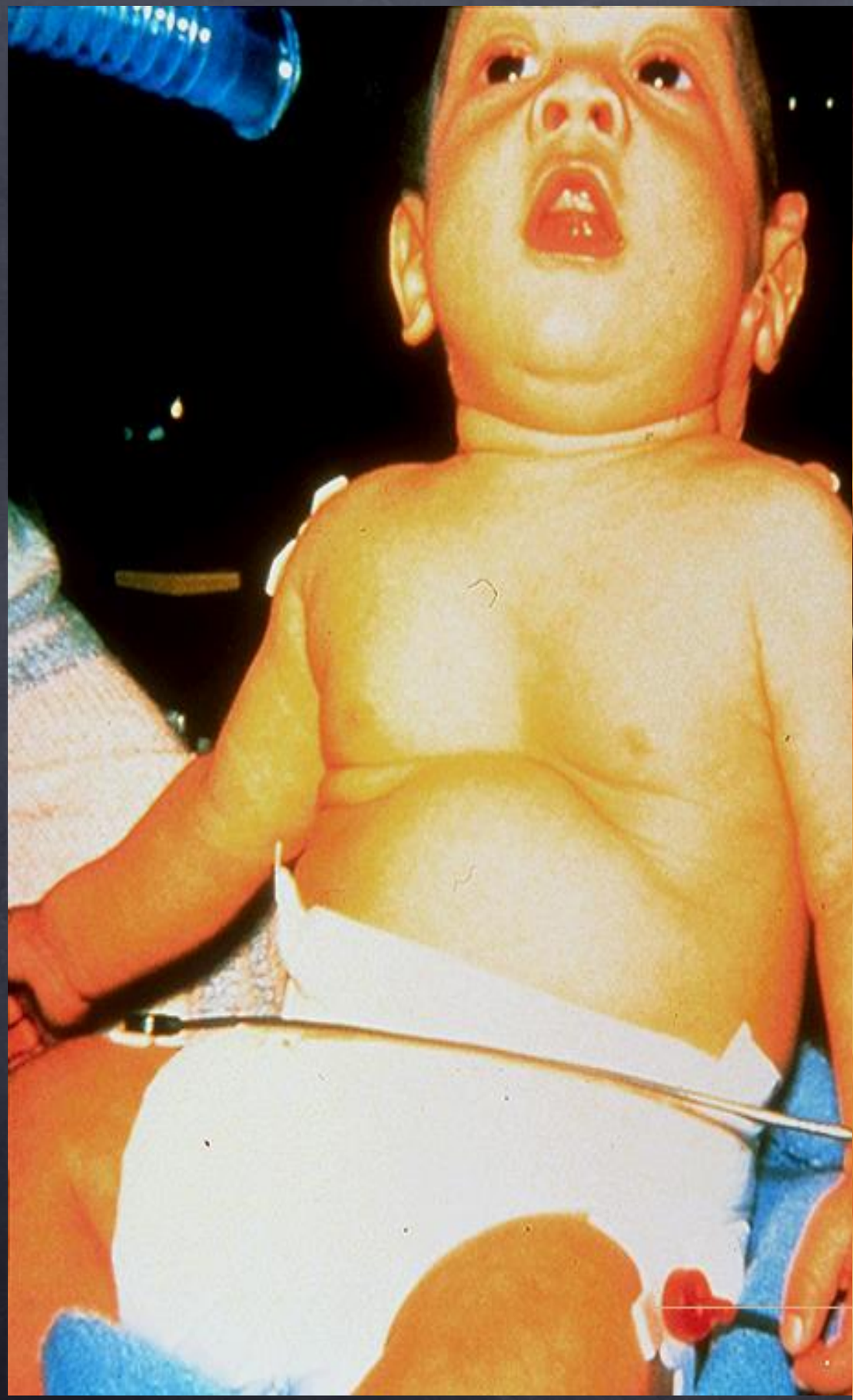
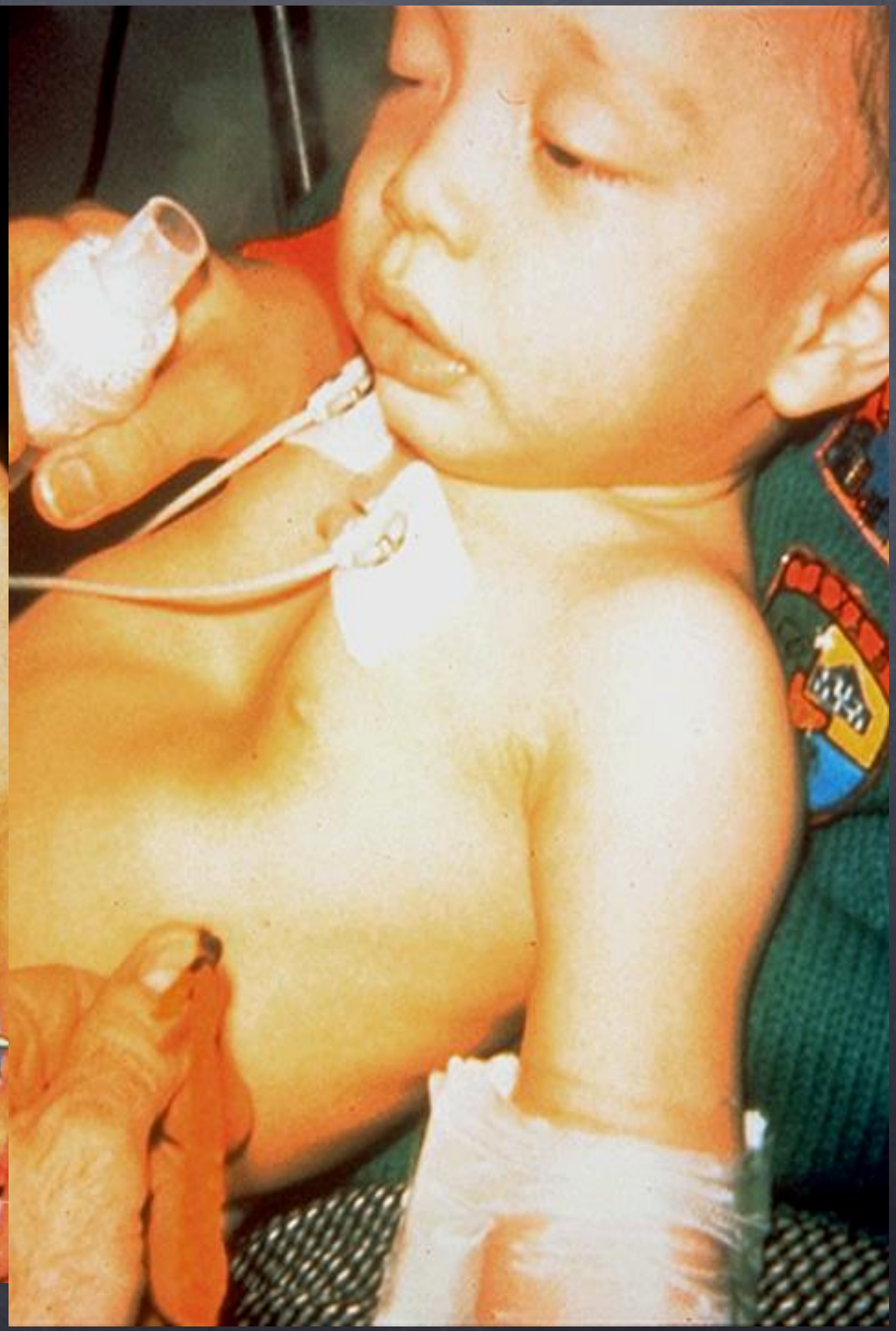
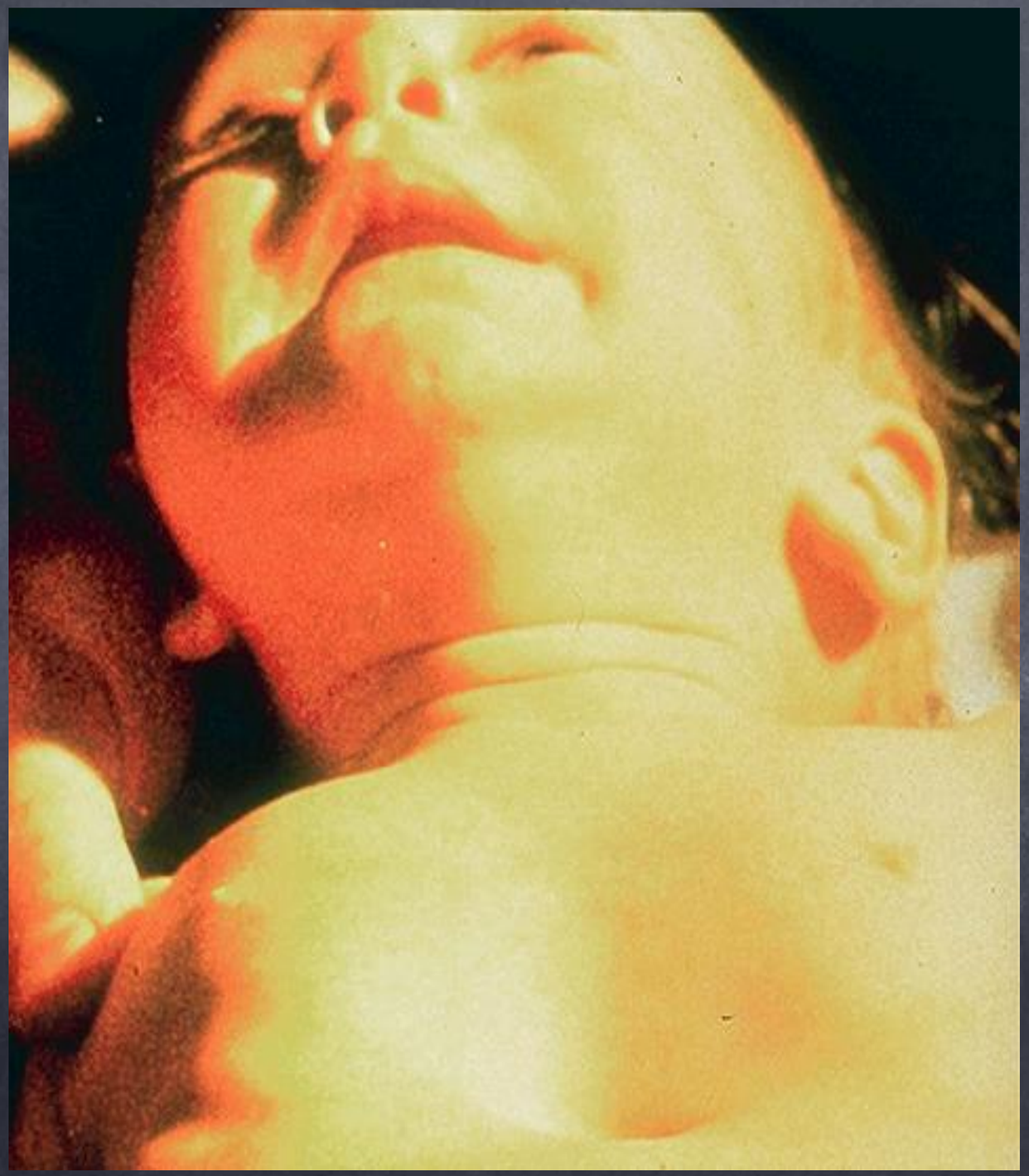


Figure 4: Child, Poor First Impression
Sick child with poor muscle tone, nasal flaring, retractions


NEW YORK STATE
PARAMEDIC







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There's a fire?
Quick, grab the putter outer!
FIRE PUTTER OUTER INSIDE

IT DOESN'T MATTER HOW MANY RESOURCES YOU HAVE

If you don't know how to use them, it will never be enough.

When plan “A” doesn’t work, you have 25 more letters….

Ultimately, whatever airway you get, is the CORRECT one…

Case

- Winter 2016, 1900-2300 hrs
- 2 m/o male in respiratory distress, 1 day hx of increased WOB, decreased PO
- HR 180s, RR 50-60s, SaO2 94% on 2 lpm NC
- Head-bobbing, grunting, nasal flaring, subcostal and sternal retractions
- Attempted HFNC, CPAP, then capillary blood gas sent: 7.11/102/97
- Patient intubated

Prehospital/EMS Survey

We value your input. Please take a moment to complete our short survey at:

www.RSQ911Solutions.com/feedback

Enter this transport code: 34QBD4-1

You can also scan the QR Code below with your mobile device to complete the survey.
(CHETA UW/AFCH Base)

20170719083817

Referring Facility Survey

We value your input. Please take a moment to complete our short survey at:

www.RSQ911Solutions.com/feedback

Enter this transport code: 34QBD4-2

You can also scan the QR Code below with your mobile device to complete the survey.
(CHETA UW/AFCH Base)

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Receiving Facility Survey

We value your input. Please take a moment to complete our short survey at:

www.RSQ911Solutions.com/feedback

Enter this transport code: 34QBD4-3

You can also scan the QR Code below with your mobile device to complete the survey.
(CHETA UW/AFCH Base)

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Parent Survey

We value your input. Please take a moment to complete our short survey at:
Valoramos su entrada. Tome por favor un momento de completar nuestra inspección corta en:

www.RSQ911Solutions.com/feedback

Enter this transport code: 34QBD4-5
Entre este código de misión: 34QBD4-5

You can also scan the QR Code below with your mobile device to complete the survey.
(CHETA UW/AFCH Base)

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