Emergency Case Scenario dilemmas

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It’s November. 4 MONTH OLD BABY
MUM SAYS SNUFFLY FEW DAYS THEN DEVELOPED COUGH AND WHEEZE
BOTTLE FED. NOT FEEDING AS MUCH AS NORMAL, WET NAPPY THIS AM
OBS, RESP RATE 40, PULSE 150, CAP REFILL< 2SEC, TEMP 37.5
EXAM – ALERT AND AWAKE, SL RECESSION , VERY NOISY BREATHING, SOME WHEEZES, FINE INSP CREPS

- LIKELY DIAGNOSIS?
- FURTHER INFO NEEDED?
- WHAT WOULD INFLUENCE MANAGEMENT?

15 MONTH OLD
PREVIOUS H/O 2 WHEEZY EPISODES REQUIRING VENTOLIN WITH REASONABLE RESPONSE
MUM SAYS COLD FOR 2 DAYS THEN BECAME MORE WHEEZY
2 PUFFS VENTOLIN VIA SPACER THIS AM WITH LITTLE RESPONSE – WENT TO GP
OBS RESP RATE 45, TEMP 39.8, PULSE 160, VERY MISERABLE AND UNCO-OPERATIVE, SOUNDS VERY RATTLY AND WHEEZY BUT DIFFICULT TO HEAR AS CRYING

- WHAT WOULD YOU DO?
- WHAT WOULD HELP?
- WHAT WOULD HELP DECIDE ON MANAGEMENT?

7 YEAR OLD
UNWELL SINCE THIS AM , HOT AND MISERABLE ACCORDING TO MUM THEN DIDN' T WANT BREAKFAST; COLD SYMPTOMS PREVIOUS EVENING , SLIGHTLY NOISY BREATHING
MUM GAVE CALPOL 2 HOURS AGO
OBSERVATIONS, PALE, QUIET, TEMP 36.9, CAP REFILL 3 secs
NO RASH , RR 30, PULSE 150
EXAMINATION , NO FOCAL NOISES

- WHAT ARE YOU CONCERNED ABOUT?
- WHAT WOULD YOU CONSIDER?
- HOW WOULD YOU MANAGE?

Normal ranges for pulse, blood pressure and respiratory rate in children

Newborn and young babies	Older babies and toddlers	Pre-school children	School children	Adolescents
Pulse (P): 110- 160 beats per minute *Tachycardia (T)*: over 180 beats per minute	*P*: 110- 160 beats per minute *T*: over 160 beats per minute	*P*: 110 to 160 beats per minute *T*: over 160 beats per minute	*P*: 80 to 120 beats per minute *T*: over 120 beats per minute	*P*: 60 to 100 beats per minute *T*: over 100 beats per minute
Systolic blood pressure (SBP): variable, but range 50 to 85 mm Hg	*SBP*: 80 to 95 mm Hg	*SBP*: 80 TO 100 mm Hg	*SBP*: 90 to 110 mm Hg	*SBP*: 100 to 120 mm Hg
Respiratory rate (RR): 30 to 50 breaths per minute *Tachypnoea (T)*: over 60 breaths per minute	*RR*: 25 to 35 breaths per minute *T*: over 40 breaths per minute	*RR*: 25 TO 30 breaths per minute *T*: over 30 breaths per minute	*RR*: 20 to 25 breaths per minute *T*: over 25 breaths per minute	*RR*: 15 to 20 breaths per minute *T*: over 25 breaths per minute

Remember importance of cuff size for blood pressure: cuff width (2/3 of shoulder to elbow distance) and cuff length (2/3 of limb circumference)

10 YEAR OLD CHILD PRESENTS WITH A SCALD TO HAND – BLISTERING OVER THUMB AND INDEX FINGER AND ERYTHEMA TO ADJACENT FINGERS – SAYS DAD WAS CROSS AND THREW HIS HOT CUP OF BLACK COFFEE OVER HER HAND

- WHAT DO YOU DO?
- WHAT WOULD YOU NEED TO FIND OUT?
- WHAT WOULD BE YOUR MANAGEMENT?

10 WEEK OLD BABY
NVD, NO NEONATAL PROBLEMS, WHOLE FAMILY HAD A COLD, BABY STARTED SNUFFLES
OBS- TEMP 38.3, CAP REFILL< 2SEC, MOIST MOUTH, BREAST FED WELL, PULSE =140, RR 30,

- WHAT DO YOU DO?
- WHAT CAN YOU USE TO HELP YOU DECIDE?

NICE and the Febrile Child

NICE evidence based guideline on the assessment and initial management of feverish illness in children aged 0-5 years published in 2007

	Green – low risk	Amber – intermediate risk	Red – high risk
Colour	• Normal colour of skin, lips and tongue	• Pallor reported by parent/carer	• Pale/mottled/ashen/blue
Activity	• Responds normally to social cues • Content/smiles • Stays awake or awakens quickly • Strong normal cry/not crying	• Not responding normally to social cues • Wakes only with prolonged stimulation • Decreased activity • No smile	• No response to social cues • Appears ill to a healthcare professional • Unable to rouse or if roused does not stay awake • Weak, high-pitched or continuous cry
Respiratory		• Nasal flaring • Tachypnoea: RR > 50 breaths/minute age 6–12 months RR > 40 breaths /minute age > 12 months • Oxygen saturation ≤ 95% in air • Crackles	• Grunting • Tachypnoea: RR > 60 breaths/minute • Moderate or severe chest indrawing
Hydration	• Normal skin and eyes • Moist mucous membranes	• Dry mucous membrane • Poor feeding in infants • CRT ≥ 3 seconds • Reduced urine output	• Reduced skin turgor
Other	• **None** of the amber or red symptoms or signs	• Fever for ≥ 5 days	• Age 0–3 months, temperature ≥ 38°C • Age 3–6 months, temperature ≥ 39°C
		• Swelling of a limb or joint • Non-weight bearing/not using an extremity	• Non-blanching rash • Bulging fontanelle • Neck stiffness • Status epilepticus • Focal neurological signs • Focal seizures
		• A new lump > 2 cm	• Bile-stained vomiting

CRT, capillary refill time; RR, respiratory rate.

- If all green features and no amber or red: manage at home with appropriate care advice
- If amber features and no diagnosis reached – provide parents/carers with safety net or refer to paediatric specialist
- If any red features – refer to paediatric specialist

Fever

- Commonest reason for presentation to primary care
- Defined as temperature >= 38c……but if identifiable cause less concern? Can be difficult to identify cause!!
- Majority of cases caused by self-limiting viral illness
- Many children will be only mildly unwell and have a focus of infection identified on clinical examination
- However…

- Children can have severe sepsis with minimal or no fever

Measurement

- The oral / rectal route should not be routinely used in children 0-5years (Delphi statement)
- Infants < 4 weeks – use electronic thermometer in the axilla
- 4 weeks to 5 years – can use electronic thermometer in axilla, chemical dot in axilla or infra-red tympanic thermometer…..younger the child consider axillary especially if common sense says tympanic is wrong! Fever scan strips are less accurate.
- Reported parental perception of fever should be considered valid and taken seriously by healthcare professionals

Antipyretics in childhood

- LEARNING POINT: Fevers are “confounders” not predictors of severity of illness
- Paracetamol regularly 15mg/kg 4-6 hrly
- Ibuprofen 5mg/kg 6-8 hrly

- Note
- 1.Confusion over strengths of preparation and trade names!
- 2. One off doses can be higher

- ESTIMATION OF WEIGHT ; (AGE+4)X2 = APPROX AVERAGE KG

Occult bacteraemia

- There is a general move away from the prescription of empiric antibiotic treatment for feverish children with no focus of infection who appear well

- Oral antibiotics should not be prescribed to children with fever without apparent source
- REMEMBER: height of fever doesn't predict severity of illness ……but , where there is no focus and the child LOOKS unwell and fails to respond to antipyretics …

Height of fever

Temperature	Risk of acute occult pneumococcal bacteraemia
39 – 39.4°	1.2%
39.5 – 39.9°	2.5%
40 – 40.4°	3.2%
> 40.5°	4.4%

HIGH RISK GROUPS

- INFANTS AGE 0 -3 MONTHS WITH A TEMPERATURE > 38°C
- INFANTS AGE 3 – 6 MONTHS WITH A TEMPERATURE > 38°C AND NO FOCUS

4 YEAR OLD
MILDLY UNWELL LAST FEW DAYS: COUGH AND TWO VOMITS YESTERDAY
MUM NOTICED RASH THAT DOESN'T FADE WITH GLASS TEST

TEMP 37.8, ON MUM'S LAP HR 100, CAP REFILL 2 SECS CHEST CLEAR
THROAT RED
PETECHIAE ON CHEEKS AND FEW ON RIGHT SHOULDER

- WHAT DO YOU DO?
- WHO CAN YOU DISCUSS THIS WITH?

PARENTS VISIT WITH 10 MONTH OLD BABY. HISTORY OF HAVING BLUE LIPS AND HANDS SITTING ON MUM'S LAP, SMILING AND ENGAGING, PLAYING WITH RATTLE

- WHAT ARE THE POSSIBLE CAUSES?
- WHAT DO YOU SEEK ON EXAMINATION?

6 YEAR OLD
PRESENTS WITH THREE DAY HISTORY OF INTERMITTENT ABDOMINAL PAIN
OFF SCHOOL TODAY AS WORSE JUST AFTER BREAKFAST THIS AM. NO DIARRHOEA, FEELS SICK BUT NO VOMITING. NO REPORTED FEVER. VAGUE TENDERNESS ON LOWER ABDOMEN MAYBE MORE ON RIGHT. URINE DIP: ONE PLUS PROTEIN AND BLOOD. WALKS TO NURSES ROOM TO BE WEIGHED – 22KG

- HOW DO YOU MANAGE THIS?
- DOES SHE NEED FURTHER INVESTIGATION?

UTI Evidence

- USING DIPSTICK TO DIAGNOSE UTI (NICE CG54)

- Caution under 3years!
- - Leucocyte and nitrite positive –send mc&s and start treatment
- - Leucocyte and nitrite negative – unlikely uti. look for other causes
- - Nitrite only positive –treat if fresh sample but send for mc&s
- - Leucocyte only positive – result may indicate infection elsewhere so treat only if compellling evidence of uti

BABIES AND TODDLERS ARE DIFFICULT!

Scenario

- 10 WEEK OLD BABY, EXCUSIVE BREAST FOR FED 2/52, THEN MIXED BREAST AND BOTTLE
- INITIALLY SMA THEN COW AND GATE COMFORT
- HV ADVISED SWITCH FROM THAT TO APTAMIL AS TAKING SMALL AMOUNTS AND OFTEN AND UNSETTLED
- UNCOMFORTABLE DURING FEEDS AND STARING TO REFUSE BOTTLES AFTER STARTING THEM, OCC CHOKING NO VOMITING .CRYING ++

- 1. WHAT DO WE NEED TO KNOW?
- 2. POSSIBLE DIAGNOSIS?
- 3. TREATMENT OPTIONS?

SCENARIO

- 8 weeks old baby , bottle fed , always a bit of hard poo and more "constipated"
- Vomiting for 24 hrs intermittently
- Parents say vomit was "curdled milk" initially then green
- Taking small amount dioralyte prescribed by GP yesterday

- 1. what diagnosis must be considered/what is the most significent part of the history?
- 2. what are important features of examination to look for?
- 3. what is the management ?

Scenario

- 4 month old presents with mum concerned re episodes of screaming (abdo pain mum thinks) followed by wind and loose stools after each feed
- One episode of blood with the stool
- 1. what are the differentials ?
- 2. how will you decide /what info do you need?

Scenario

- 2 year old with d&v for 2 days
- Mum says has had no wet nappy today and "wont take anything"
- Miserable and crying but fights off examination
- Obs temp 37.6 , pulse =136 , rr 35, cap refill2-3 sec

- 1. how do you assess further and how would you manage this
- 2. what is the likely diagnosis
- 3. what do you advise mum

Scenario

- 14 month boy mum concerned as peristent diarrhoea for 2-3 months and fed up being “fobbed off” by HV
- 8 loose watery motions a day , mum says worse after eating
- Child seems very well you examine , obs normal; always been on 50th centile , remains so
- Mum says stools are often very smelly and pale and contain undigested food

- 1. what is the likely diagnosis
- 2. what tests are needed

Child Protection scenarios

- Jenny is 17 and has left home to go to College. She is one of 5 children. She has an older brother aged 21 who still lives at home with her parents and her three younger siblings , aged 14, 10 and 7. She is tearful when telling you that she doesn't like college or her friends . She seems depressed. She tells you that her father has just left her mother and gone to live with his other woman and her family in the North and her mother is very upset and wants Jenny to return home. She is glad her father left because , although she has never told anyone before , he abused her physically and sexually from the age of 8.

She wants antidepressants and says you must promise not to tell anyone about what she has said as it would upset her mother if she found out that Jenny had told you that.

What are the issues here?

What are your responsibilities?

Cases for discussion –what should you do?

- Victoria, 15, presents alone at sbch complaining of abdominal pain. You ask how things are at home and school, at which point she gets very upset. She says that her dad has started getting into bed bedside her and touching her breasts while her mum does night duty. The family is highly-regarded; in fact they are known to you. What should you do?

Cases for discussion –what should you do?

- A 12 year old girl comes into sbch with a vaginal discharge and pelvic pain.
- On further questioning you find that she has been having sex with a 17yr old.

- **What action should you take?**

http://police.homeoffice.gov.uk/publications/operational-policing/bichard-inquiry-report?view=Binary

Cases for discussion –what should you do?

- In clinic, a father tells you that he regularly shares his 12 year old daughter' s bed because she has cerebral palsy and severe epilepsy and he is worried that she will have a fit and die during the night.

- **What ethical issues arise here?**
- **What should you do about it?**

Cases for discussion –what should you do?

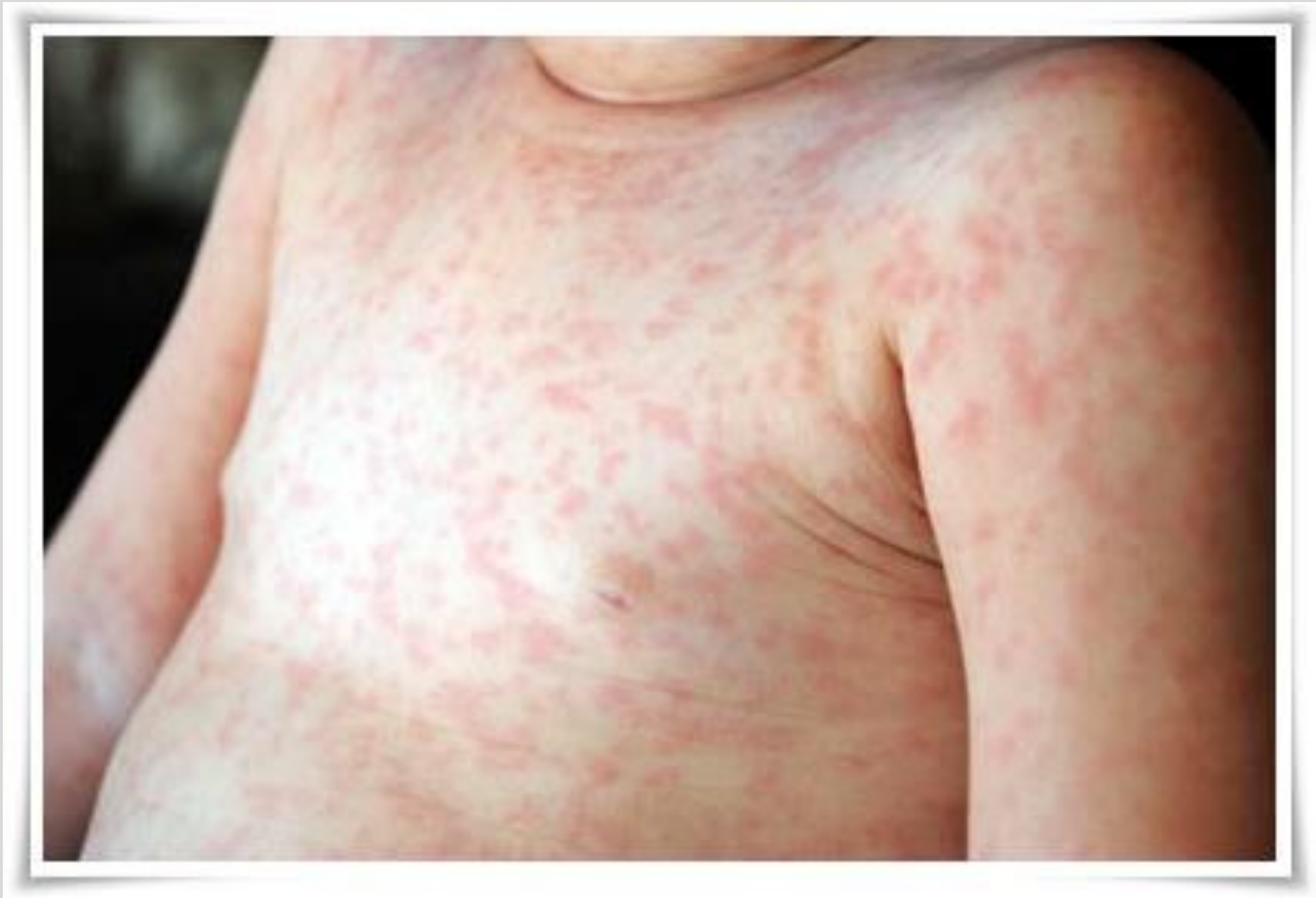
- In the waiting room, you witness a mother shaking a 4 month-old baby to quieten him because he is screaming loudly.
- **What should you do?**

Cases for discussion –what should you do?

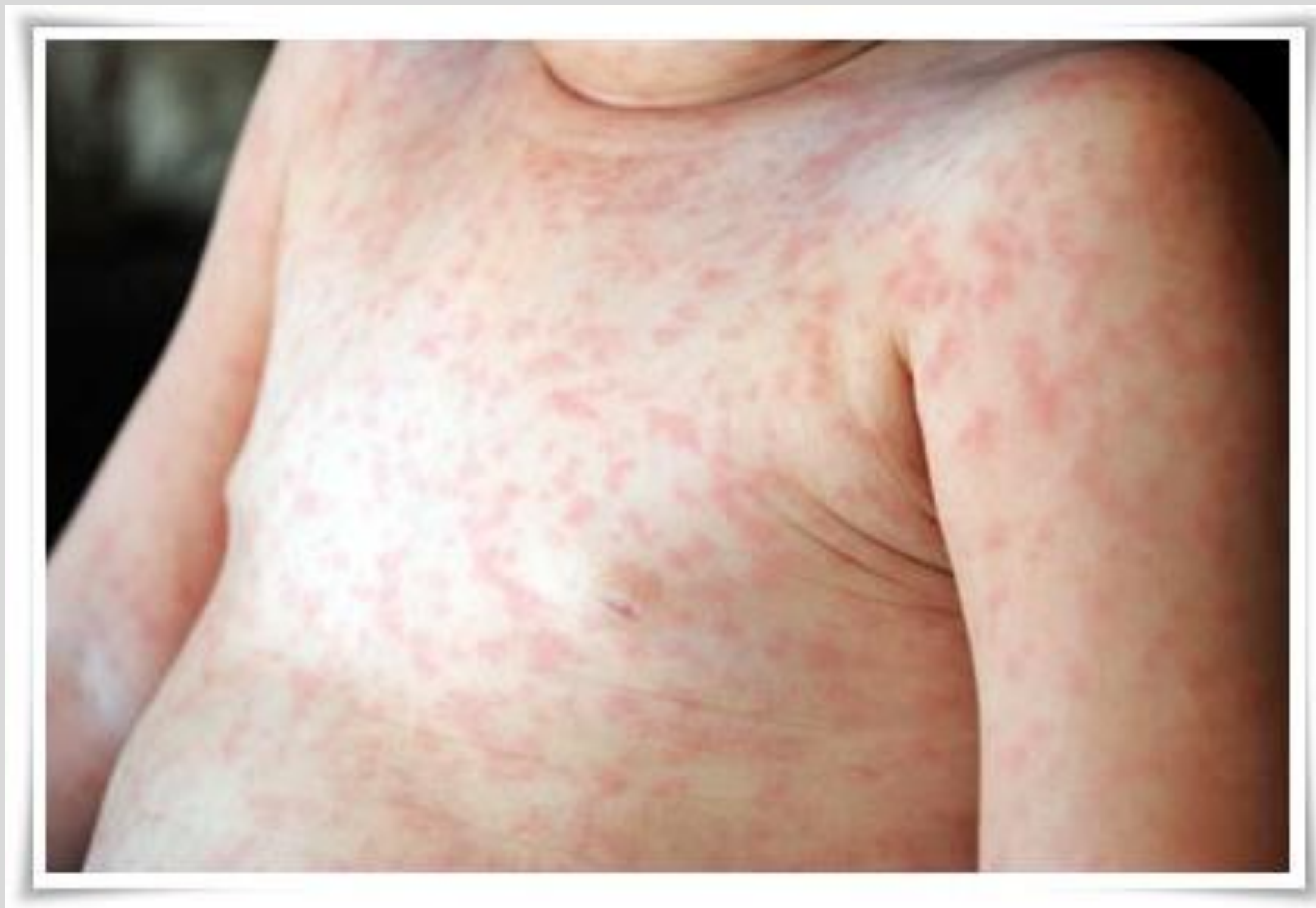
- Sylvie, 25, presents to sbch with a black eye and bad bruising on her arms. You establish a good rapport with her and towards the end of the consultation (when you are alone) she discloses her boyfriend has hit her, not for the first time. You also know this woman has a 3 year-old son who has been seen in sbch twice in the past 6 months for minor injuries sustained whilst in the care of this man. Sylvie denies that her son could be at risk and says his injuries had very straightforward causes. Sylvie begs you not to say anything to the consultant or anyone else.
- **What should you do?**

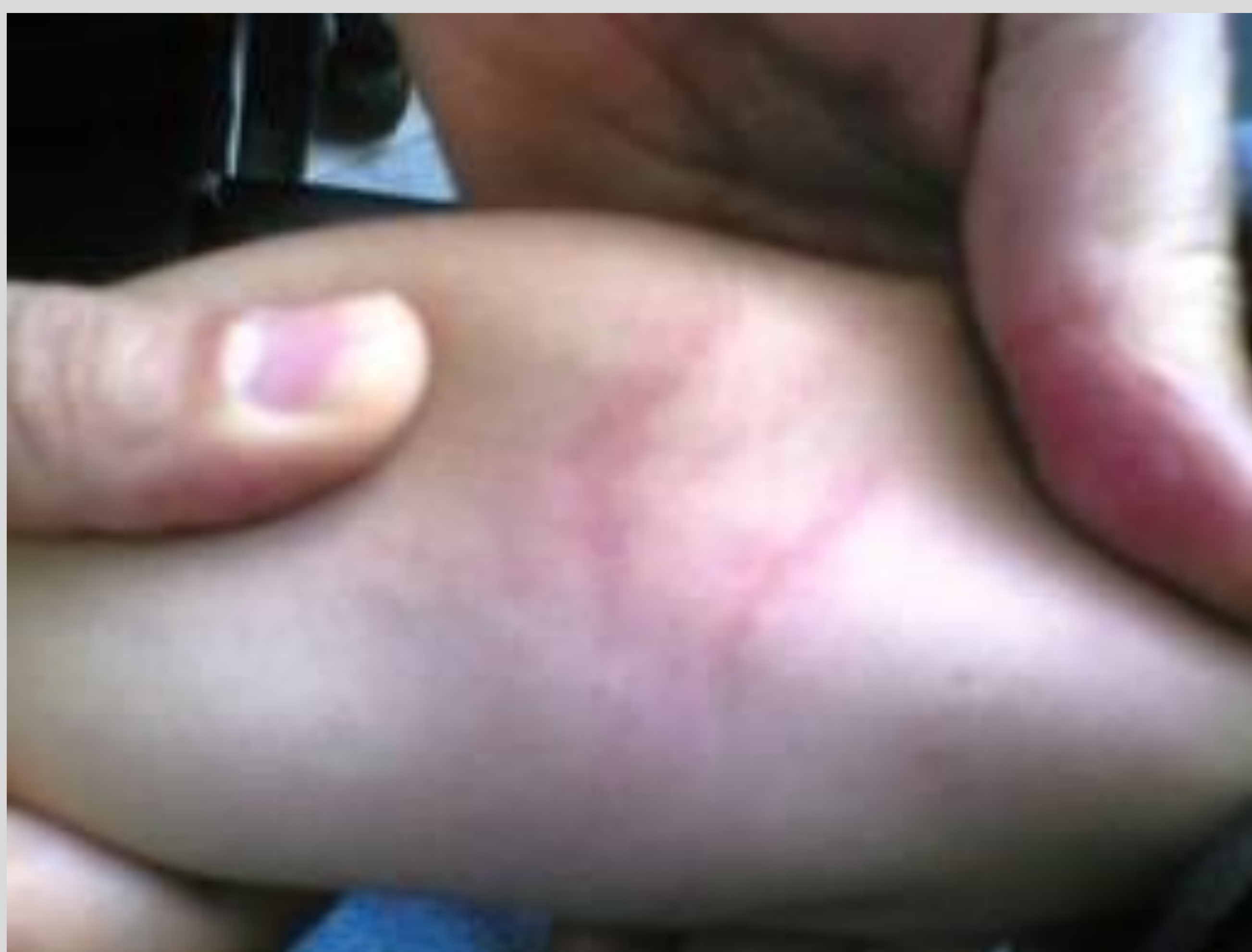
(Case adapted from: A. Slowther, 'Child Protection: The Ethical Issues' in *Protecting Children from Abuse and Neglect in Primary Care*, OUP 2002)

RASHES

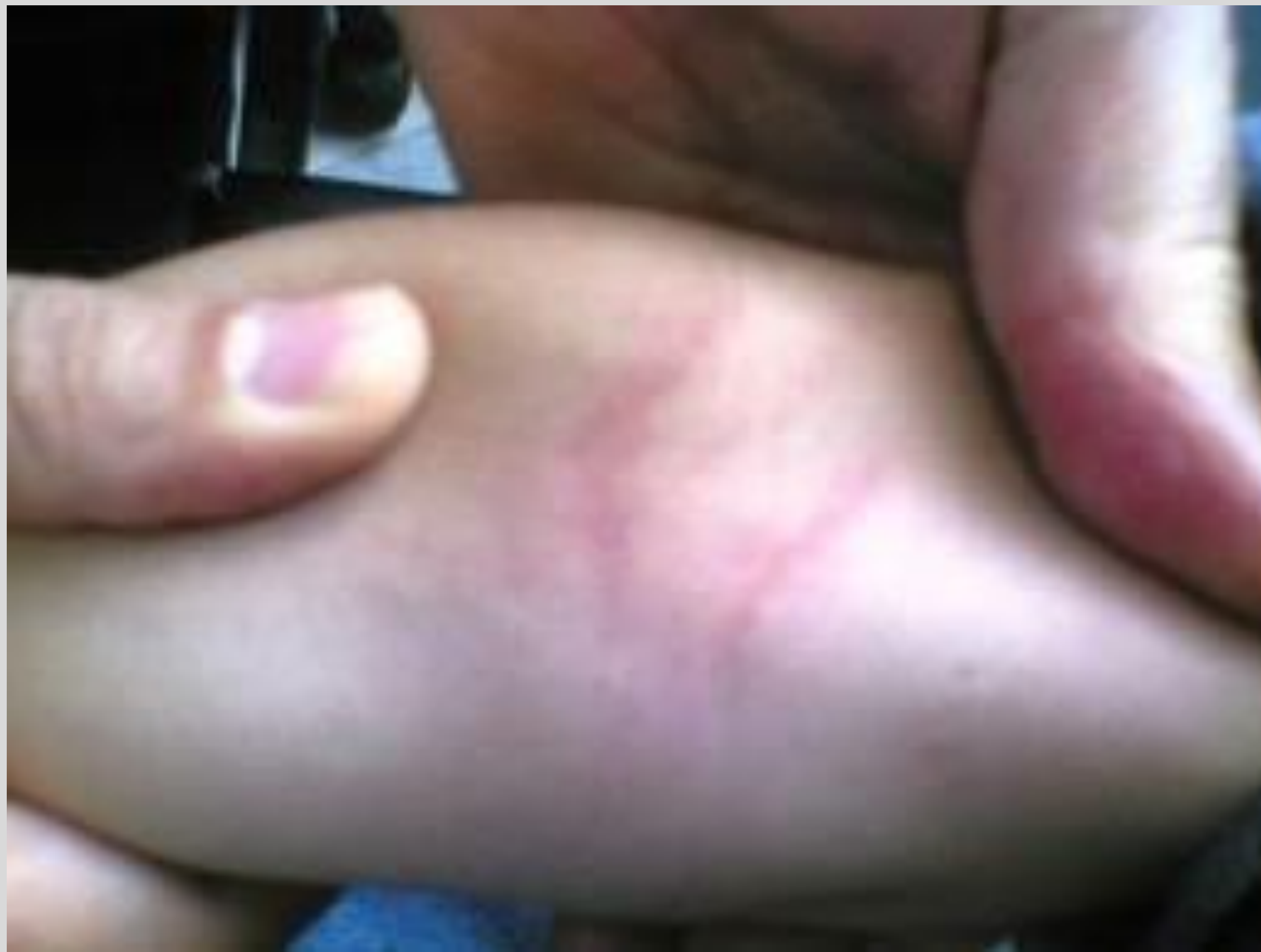


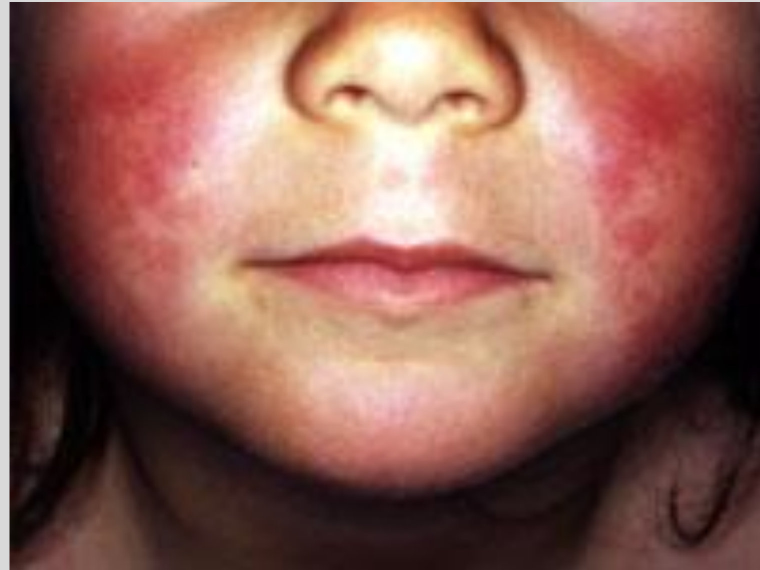
Roseola Infantum

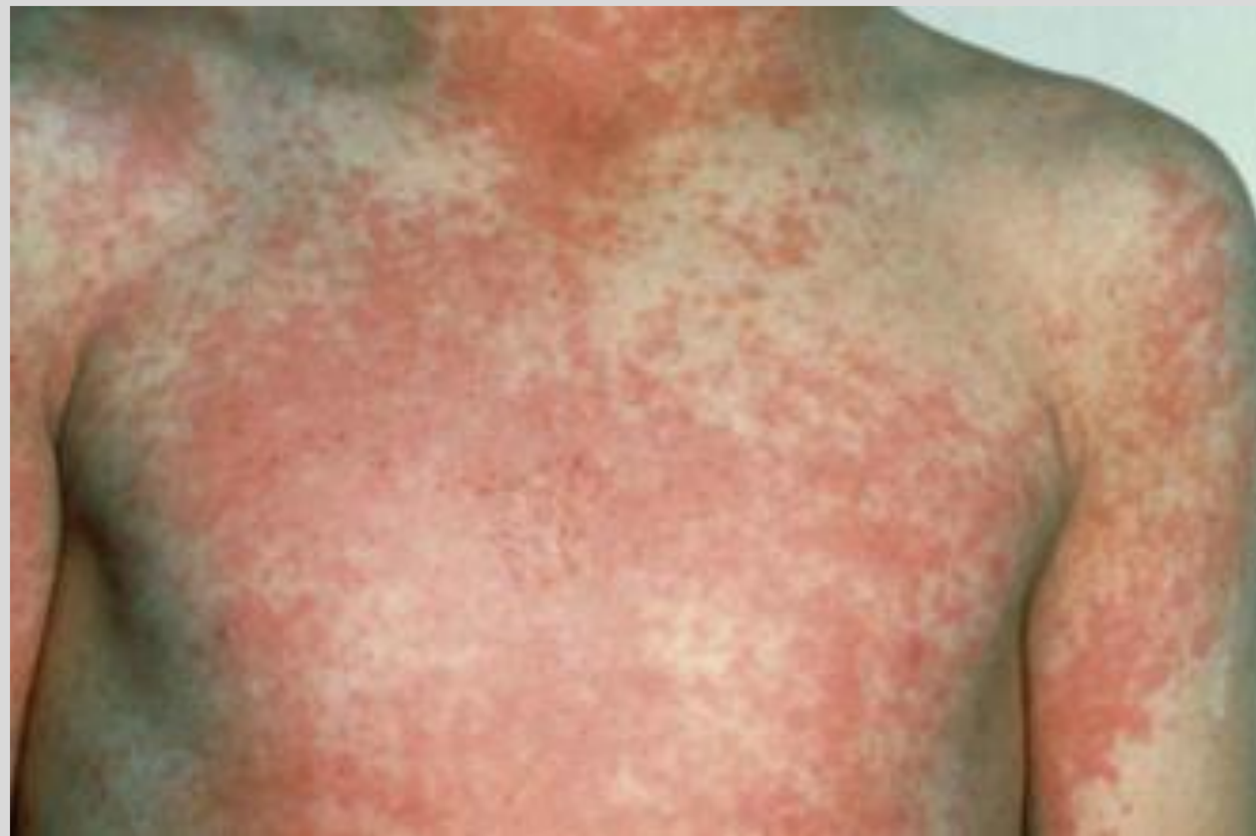




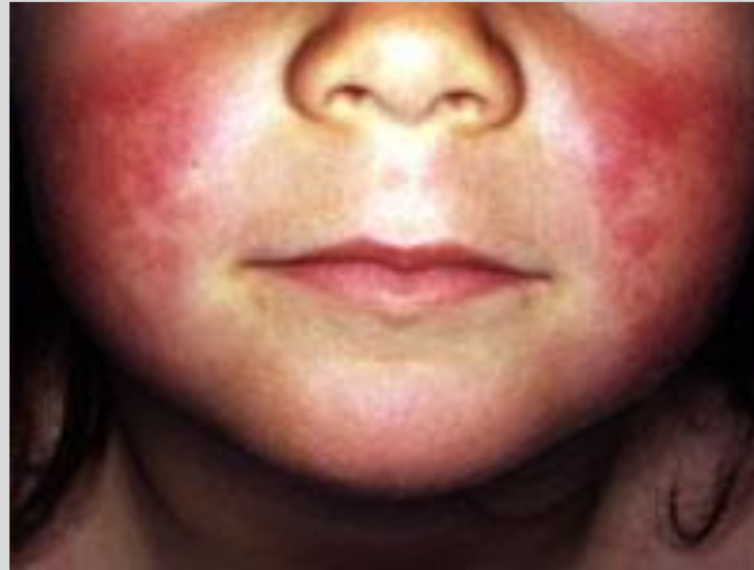
Pastias Lines

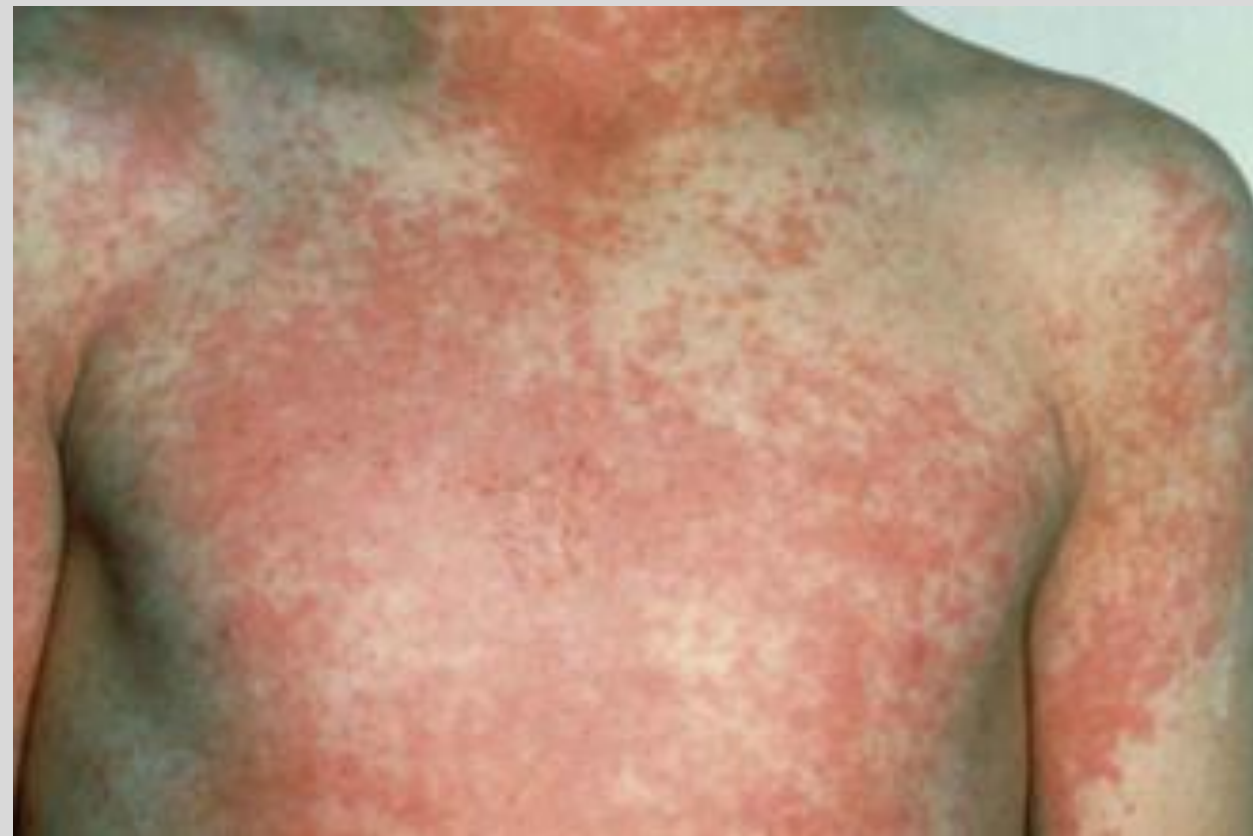


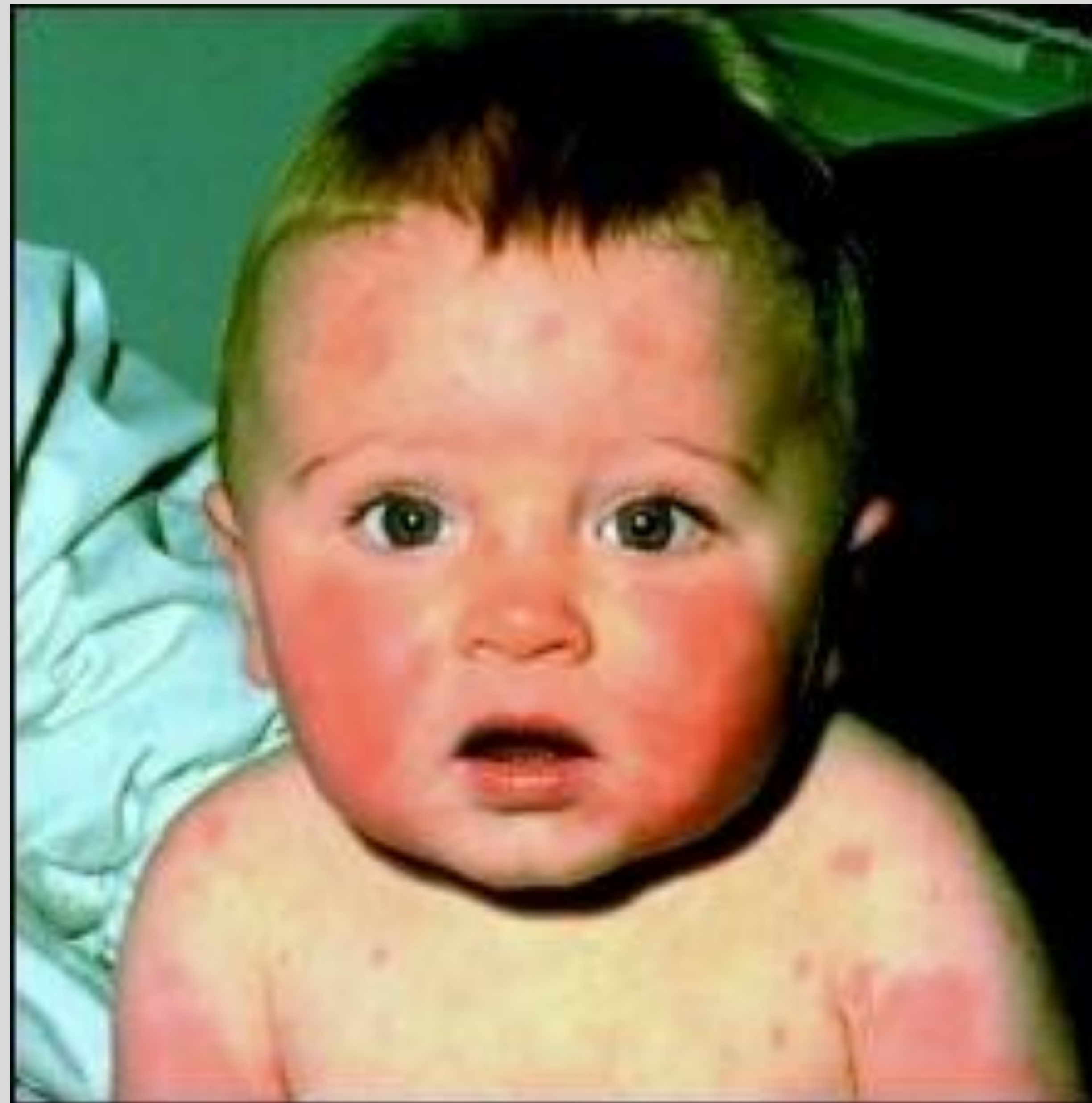




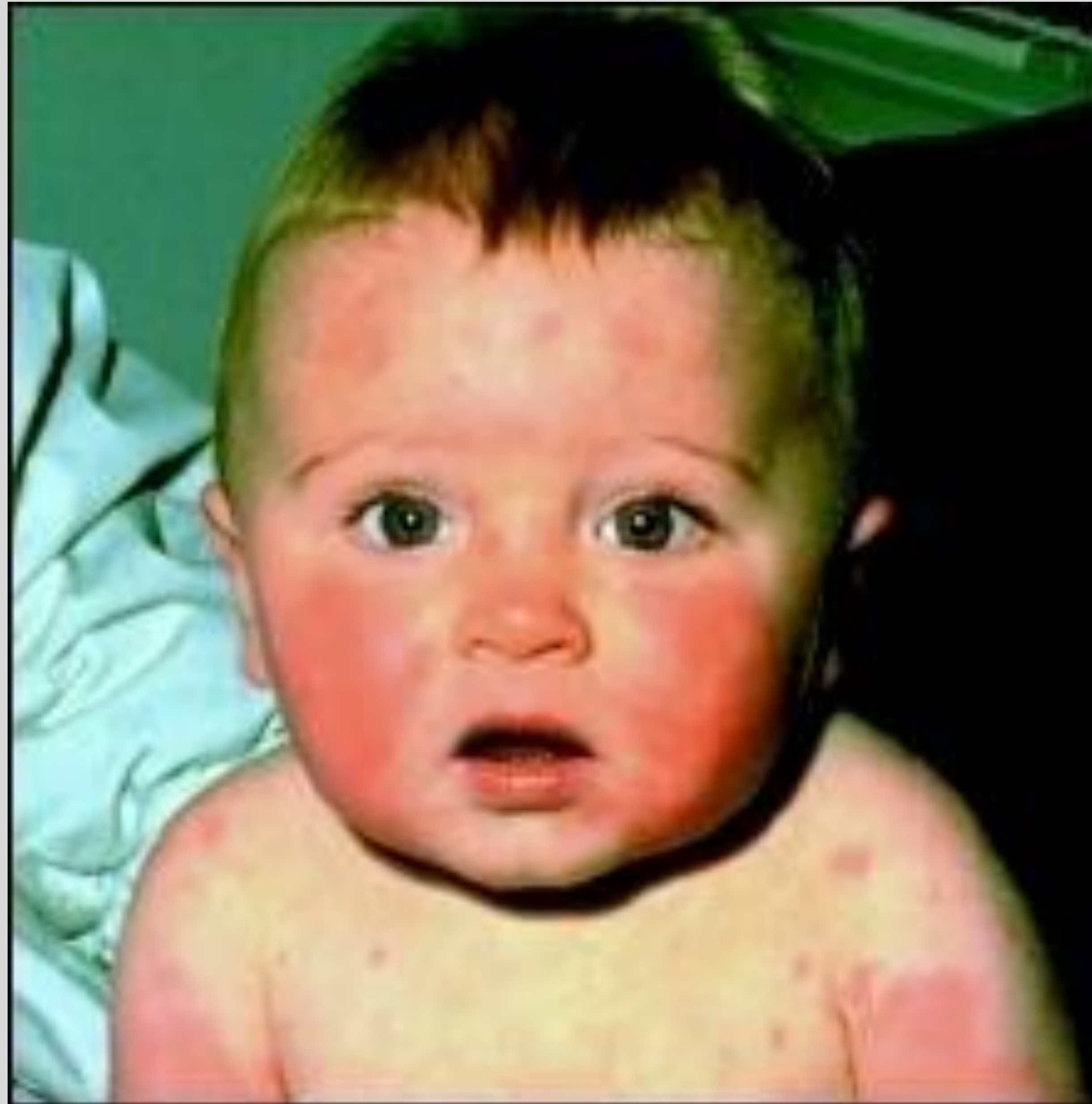
Scarlet Fever

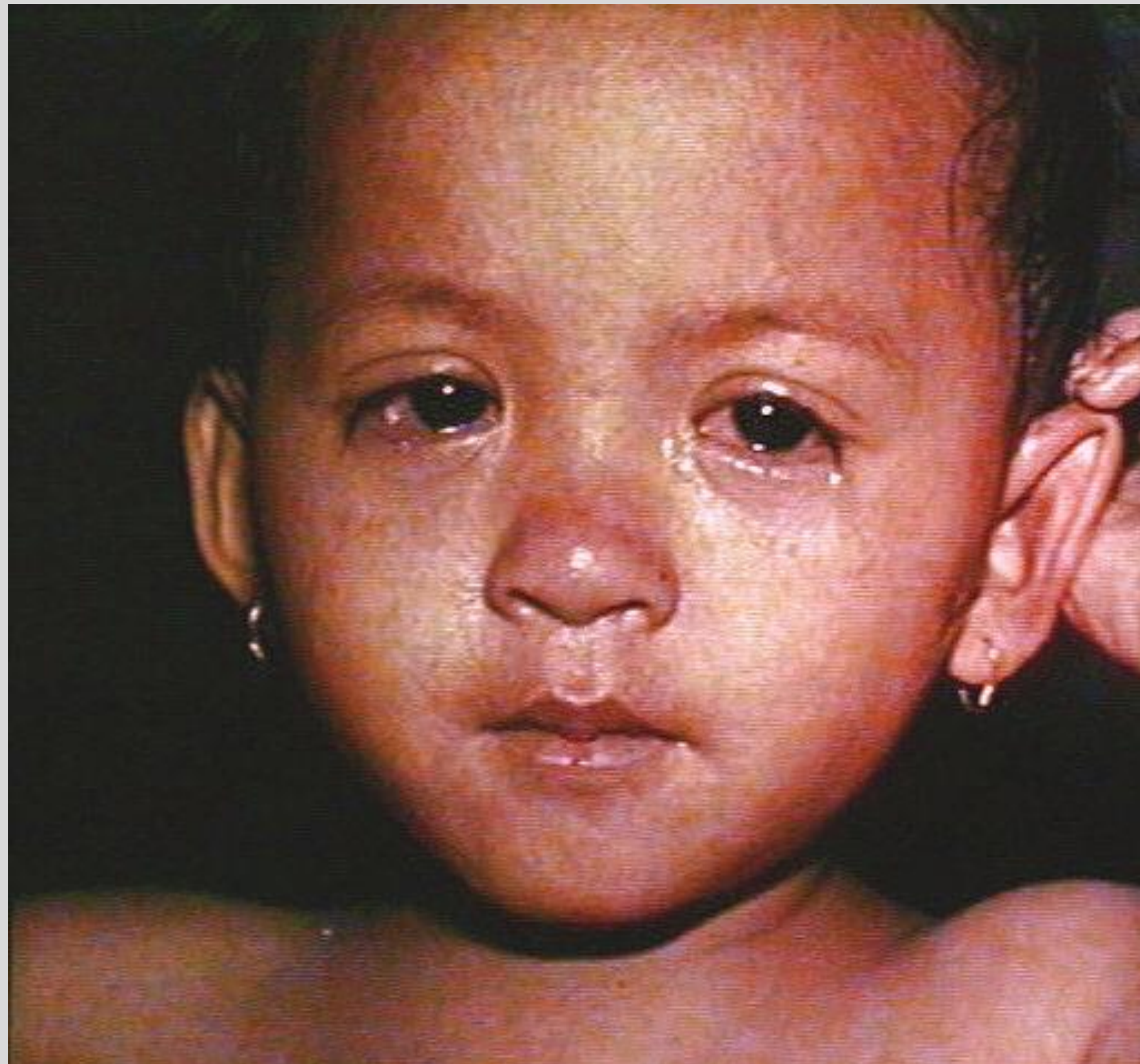




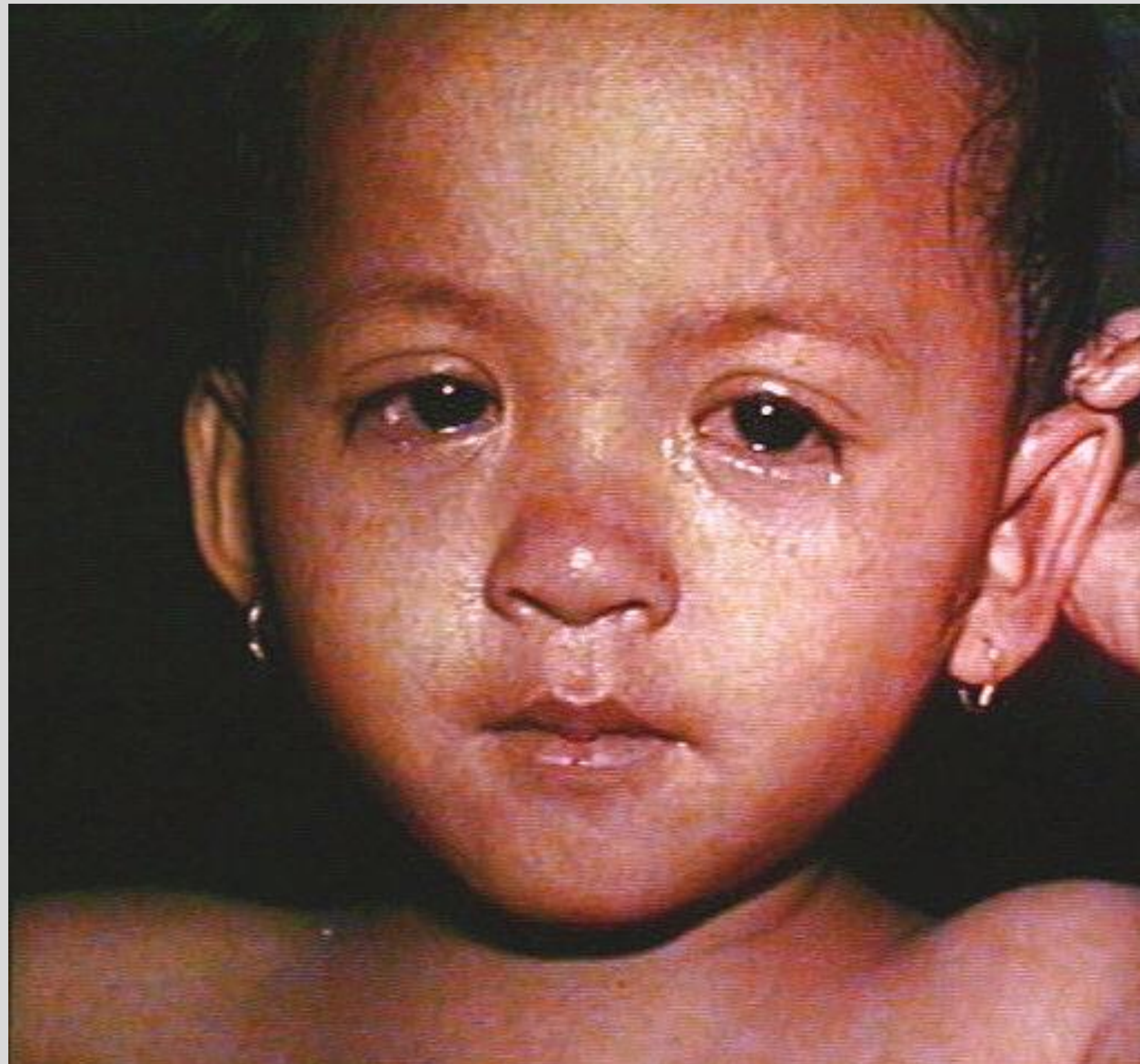


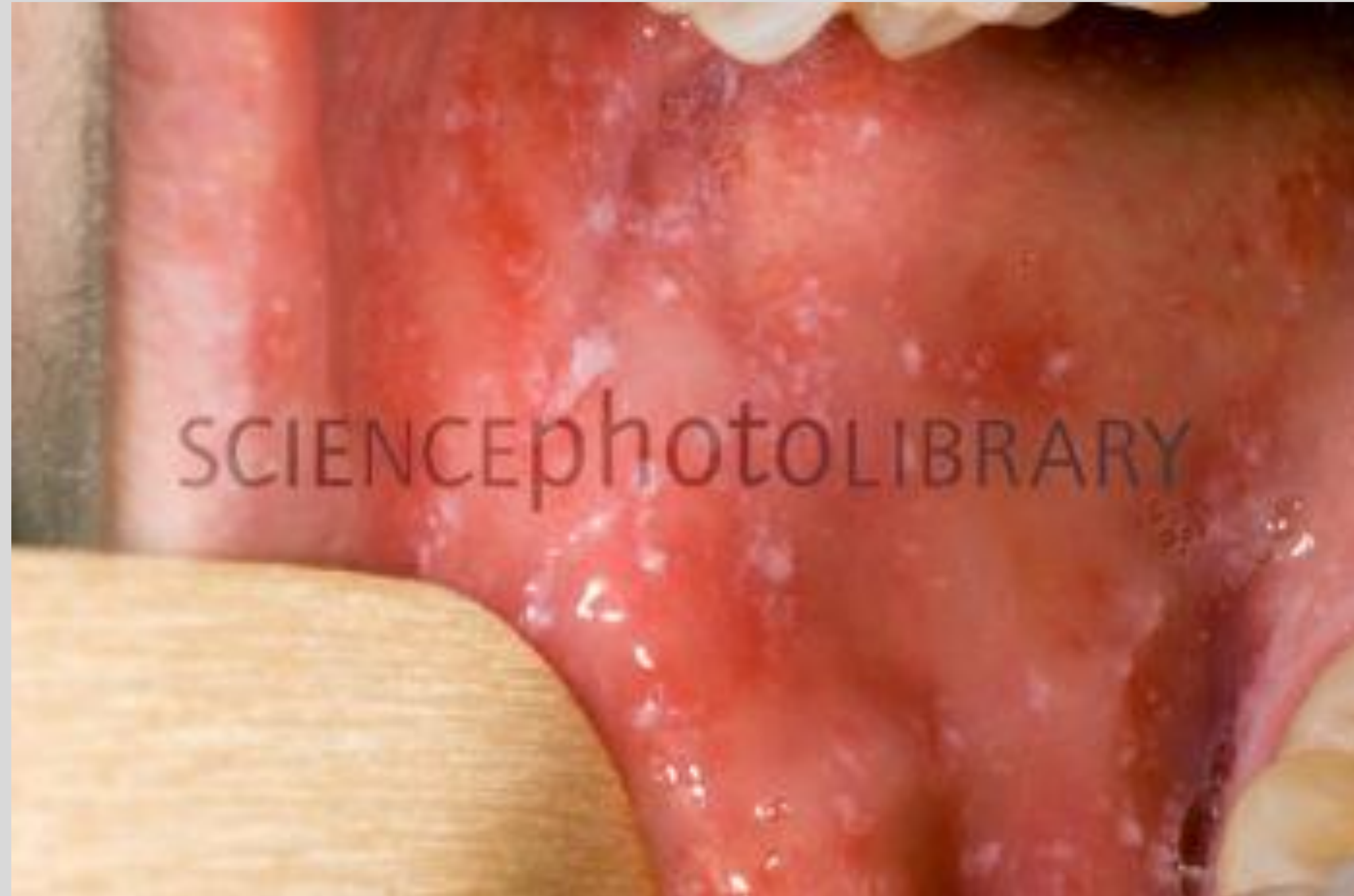
Fifth Disease





Measles

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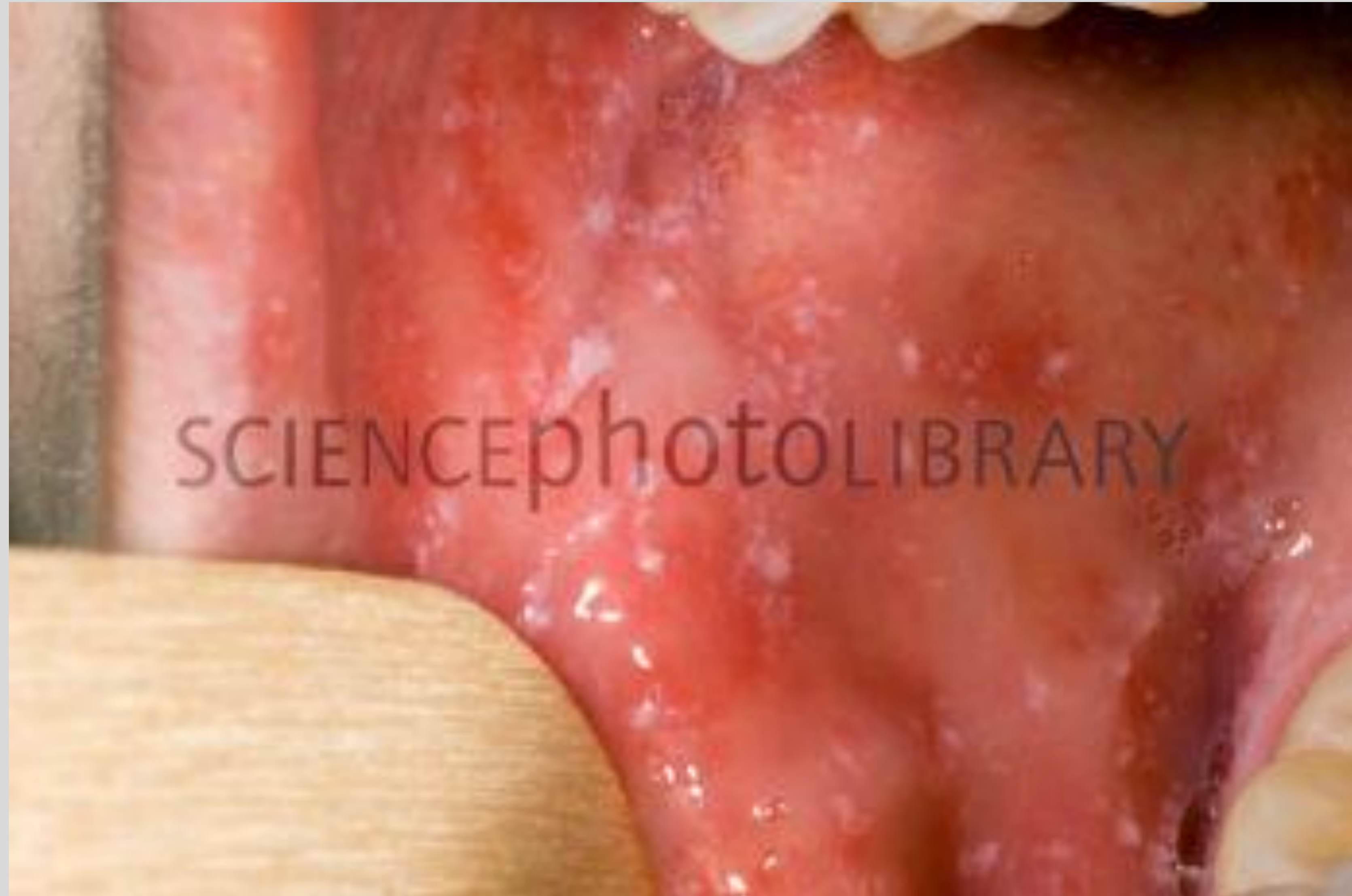
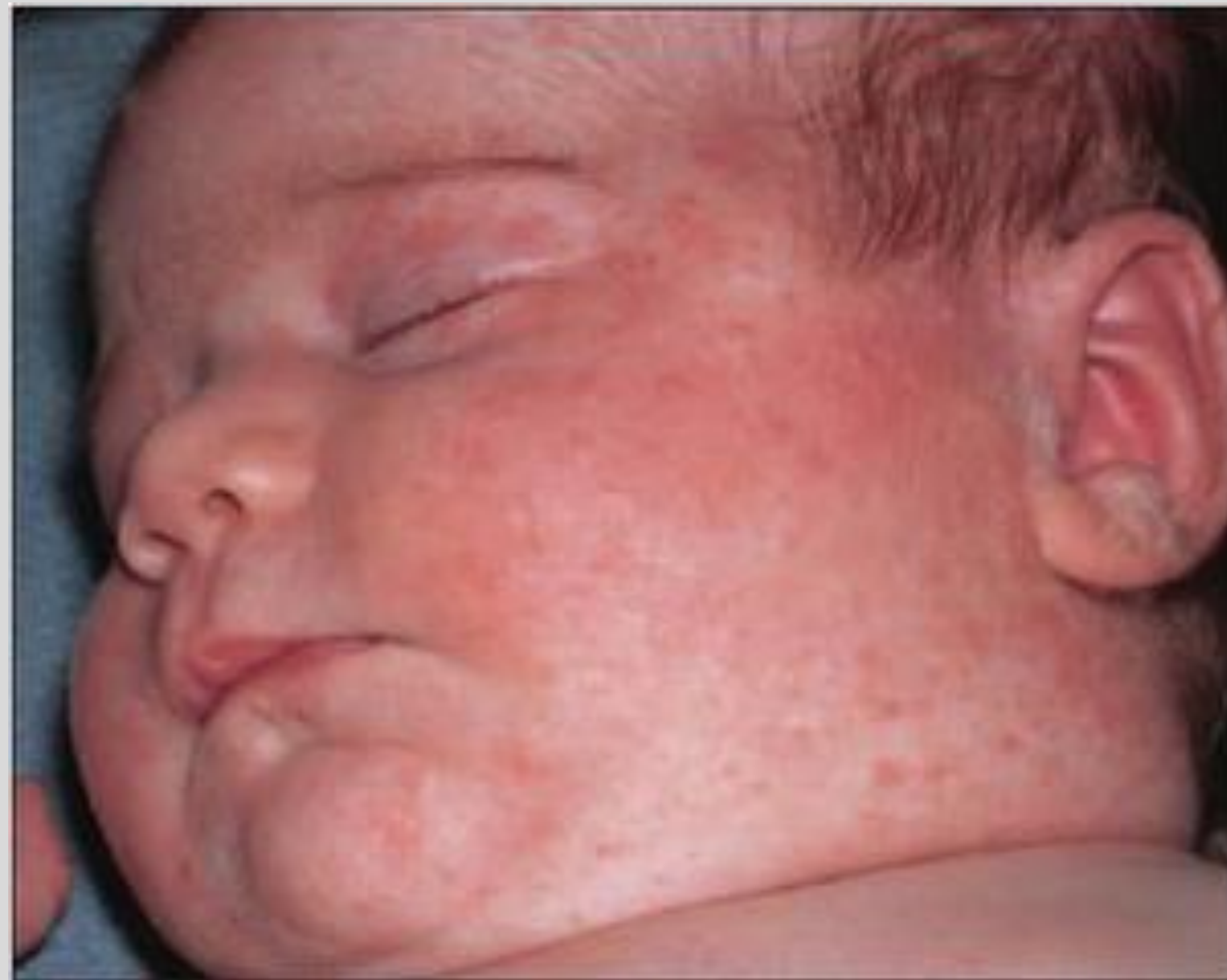
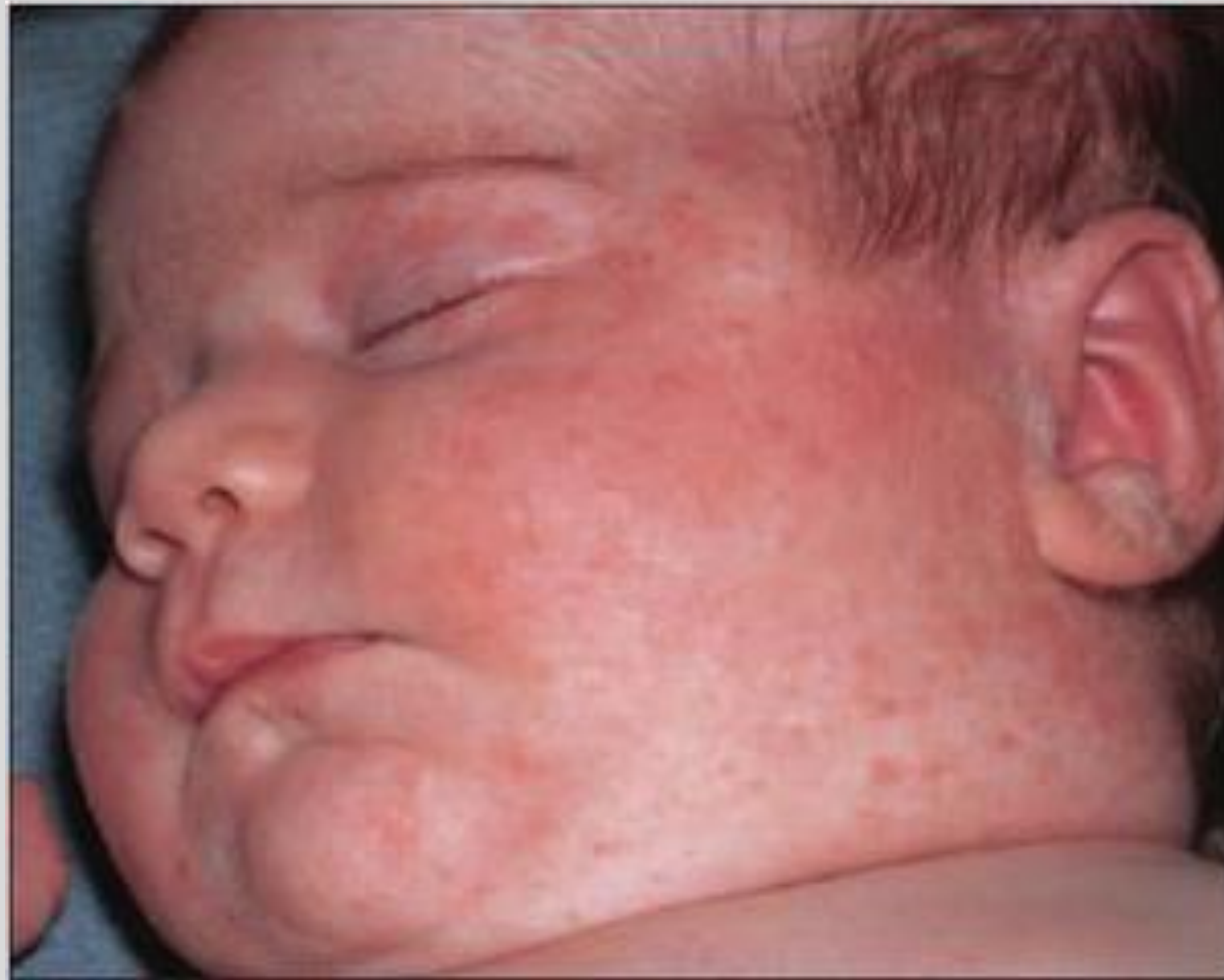
Kopliks Spots

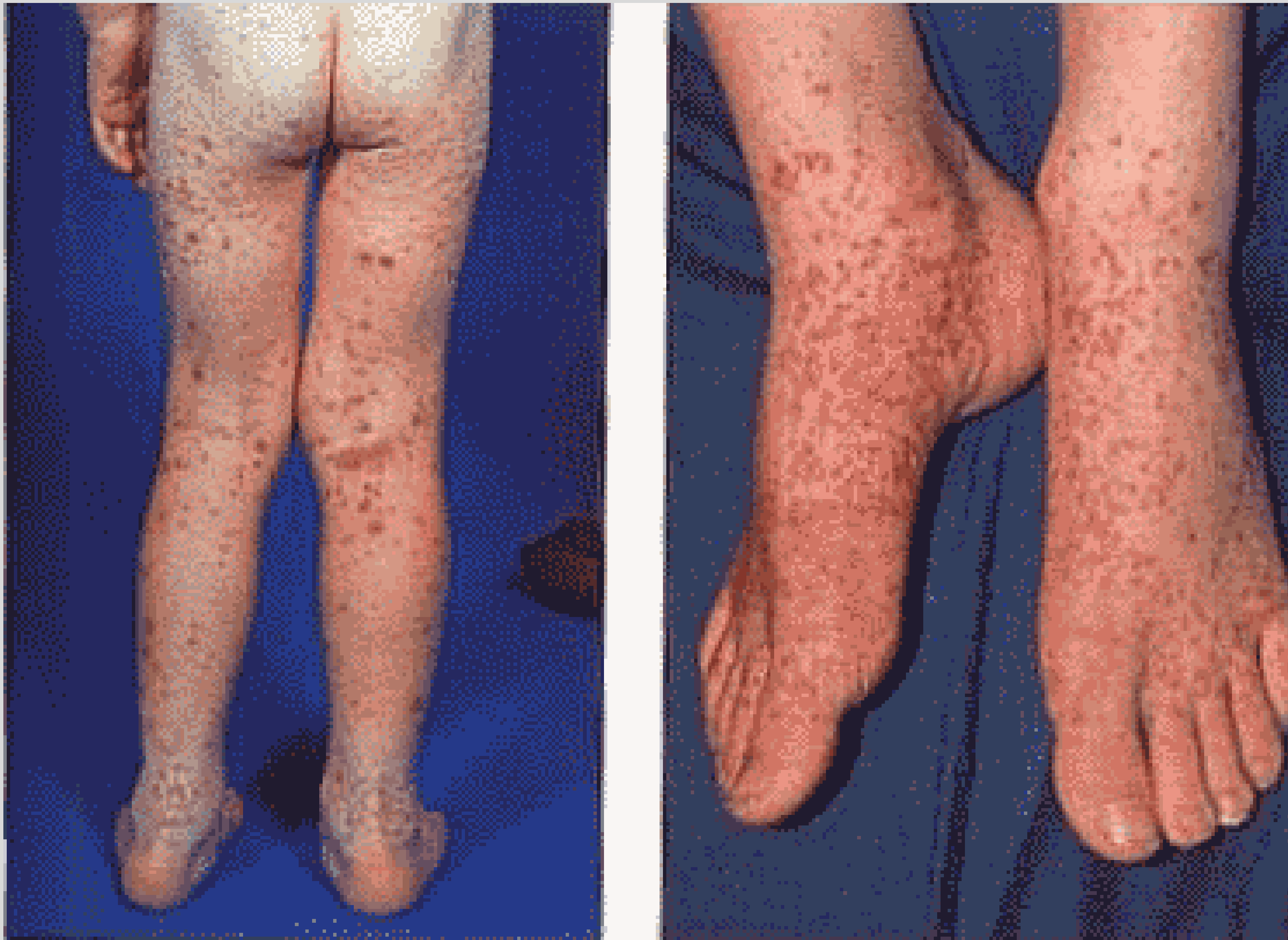




Miliaria



WHAT COULD THIS BE?



- What investigation might be required?