



OneShot 4.0

Paediatrics

DBMCI · 2026





PAEDIATRICS

<i>Sl. No.</i>	<i>CHAPTER</i>	<i>Page No.</i>
1.	<i>Growth</i>	321
2.	<i>Malnutrition</i>	329
3.	<i>Milestones</i>	331
4.	<i>Genetics</i>	335
5.	<i>Neonatology</i>	339
6.	<i>GIT and Systemic Paediatrics</i>	347

“

If you want
to get to
heaven then
be prepared
to die for it.

- Dr. Aditya Gupta

”



GROWTH

WEIGHT

BIRTH 3kg (X)

5MO X

1YEAR X

2Y X

3YEARS X

5YEAR X

7YEARS X

LENGTH

BIRTH

1YEAR

2YEAR

4YEAR.

WEIGHT DOUBLES BY _____, TRIPLES BY _____

HT/LENGTH DOUBLES BY _____, TRIPLES BY _____

A CHILD IS HALF THE ADULT HEIGHT AT _____

HEAD CIRCUMFERENCE.

BIRTH

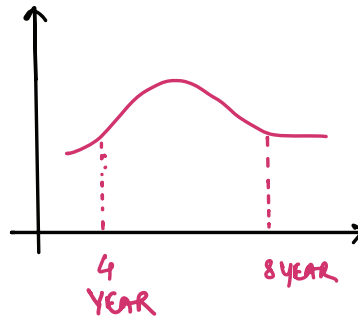
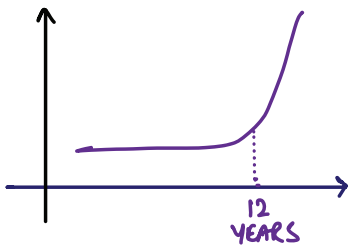
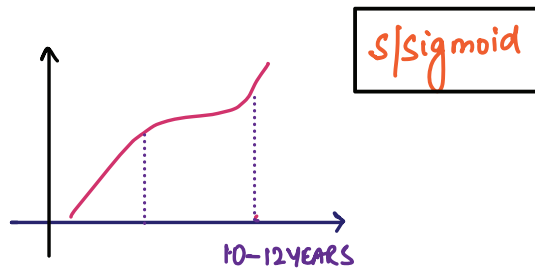
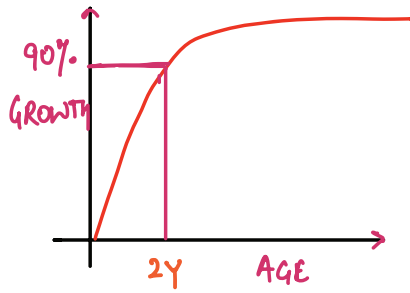
FIRST 3MONTH

4-6 MONTHS

7-12 MONTHS _____

90% of adult HC $\xrightarrow{\text{BY}}$


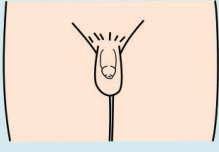
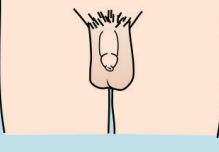


GROWTH CURVES

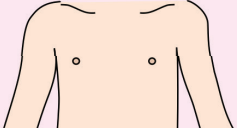
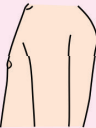
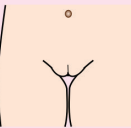
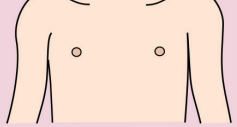
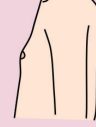

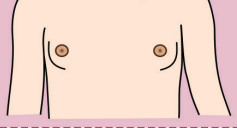

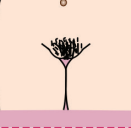
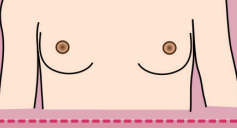


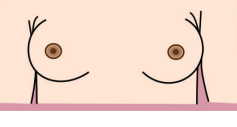




PUBERTY AND ADOLESCENCE

↓ ↓
Group (who defined)

SEQUENCE OF PUBERTY [FEMALES]	SEQUENCE OF PUBERTY [MALES]
T ↓ P ↓ M	T ↓ P ↓ M.

I		3 ↕ <2,5	PRE —
II		4 ↕ 2,5-3,2	INCREASE IN VOLUME PUBIC HAIR
III		10 ↕ 3,6	PUBIC HAIR → INCREASE IN PENILE
IV		16 ↕ 4,1-4,5	GROWTH SPURT INCREASE IN PENILE
V		25 ↕ >4,5	ADULT TV

I				PRE —
II				APPEARANCE OF BVD PUBIC HAIR
III				GROWTH PUBIC HAIR
IV				PUBIC HAIR → ADULT except FORMATION OF
V				ADULT

ASSESSMENT OF GROWTH

AGE DEPENDENT

- 1.
- 2.
- 3.

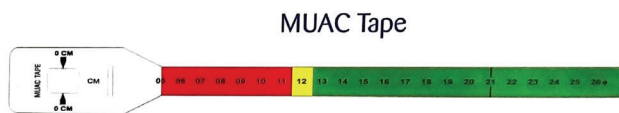
AGE INDEPENDENT

- 1.
- 2.
- 3.

LENGTH v/s HEIGHT



MID-UPPER ARM CIRCUMFERENCE.



RED
YELLOW
GREEN

SKIN FOLD THICKNESS



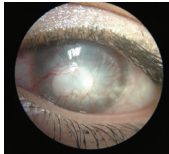


< 6mm →
> 10mm →
M/C SITE →
OTHER SITES

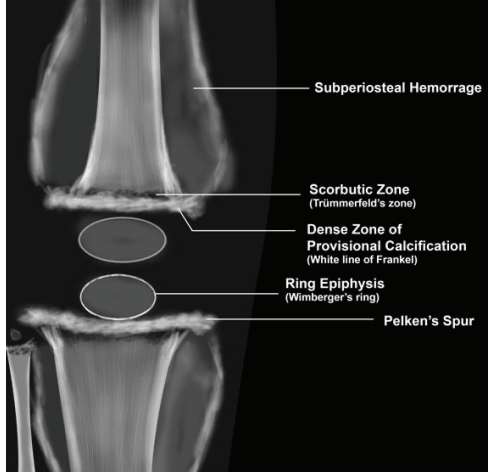
VITAMINS / MINERALS

FAT SOLUBLE

WATER SOLUBLE

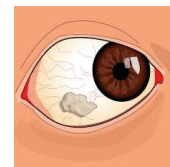
WATER SOLUBLE

	FUNCTION	DEFICIENCY
<p>B₁ THIAMINE</p>	<p>INVOLVED IN _____ CYCLE</p> <p>A T P</p>	<p>BERI</p> <p>◦ EATING _____ RICE</p>
<p>B₂ Riboflavin</p>	<p>PART OF</p> <ul style="list-style-type: none"> ◦ S ◦ GLUTATHIONE 	 
<p>B₃ NIACIN</p>	<p>In our body</p> <p>TRYPTOPHAN</p> <p>↓</p> <p>PATHWAY:</p>	 <p>3</p> <p>ALSO SEEN IN</p> <p>(A) _____ RICH DIET</p> <p>(B) _____ DISEASE</p> <p>(C) _____ SYNDROME</p> <p>(D) DRUGS eg.</p>
<p>B₅ PANTOTHENIC ACID.</p>	<p>Part of</p>	
<p>B₆ PYRIDOXINE</p>	<p>(A)</p> <p>(B) SYNTHESIS</p> <p>(C) ALT / AST</p>	<ul style="list-style-type: none"> ◦ NEONATAL ◦ PERIPHERAL ◦ <p>DRUGS →</p>

<p>B7 BIOTIN</p>		<p>EATING RAW leads to</p>
<p>FOLATE Vit B12</p>	<p>B12 ONLY in</p>	<p>B12 → ANEMIA +</p>
<p>VITAMIN C</p>	<p>1. Hydroxylation of in 2. Anti - 3. Absorption of</p>	<p>SCURVY 1. BLEEDING 2. SKIN 3. JOINTS →</p> 

FAT SOLUBLE VITAMINS

	FUNCTION	DEFICIENCY
<p>VITAMIN A</p>	<p>• EPITHELIAL • Vision • CELL-</p>	<p>DRY FIRST EYE SYMPTOM FIRST EYE SIGN X1A Conj. X1B SPOTS. X2 CORNEAL X3 CORNEAL</p>



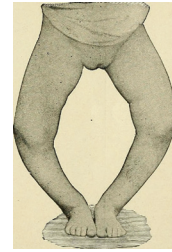
VITAMIN D

RICKETS :

CLINICAL FEATURES

1st sign

LOWER LIMB



CHEST

XRAY



1st

TREATMENT

LAB INV.

CALCIUM:

PO₄

PTH

ALP

VITK

γ carboxylation of FACTORS

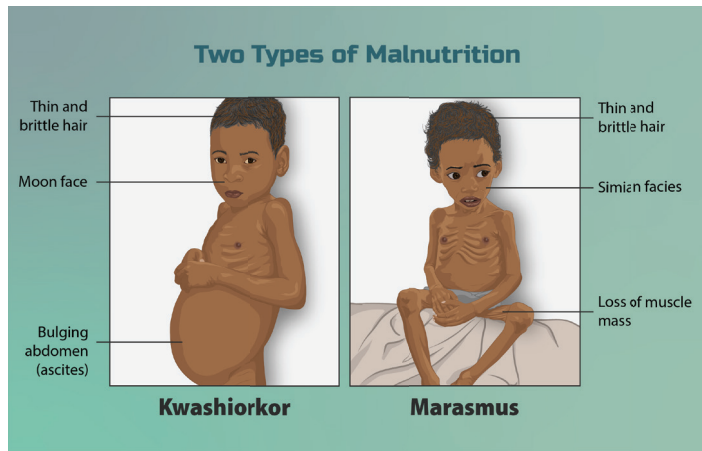
defⁿ →

DISEASE OF NEWBORN

MALNUTRITION (SEVERE FORMS)

KWASHIORKOR v/s MARASMUS.

LOSS OF <hr/> PROTEIN	LOSS OF <hr/> PROTEIN
-----------------------------	-----------------------------



KWASHIORKOR

MARASMUS -

WASTING

APPETITE -

CONSCIOUSNESS

AGE (ONSET)

LIVER

FACE

(Appearance)

PROGNOSIS

Additional

features

MALNUTRITION

ACUTE

CHRONIC

BEST
METHOD

if $< -2SD$
 $< -3SD$

ACUTE MALNUTRITION
is aka

aka.

Weight for age \longrightarrow BOTH (A)
(B)

if $< -2SD$:

Eg 1) 2y old child
12kg $\xrightarrow{1\text{month}}$ 8kg.
88cm $\xrightarrow{1\text{month}}$ 88cm
2y 1mo

W/L \longrightarrow
W/A \longrightarrow
H/A \longrightarrow

Eg 2) 2y old child
12kg $\xrightarrow{1\text{year}}$ 12kg
88cm $\xrightarrow{1\text{year}}$ 88cm

W/A \longrightarrow
H/A \longrightarrow
W/L \longrightarrow

BEST (ACUTE) :

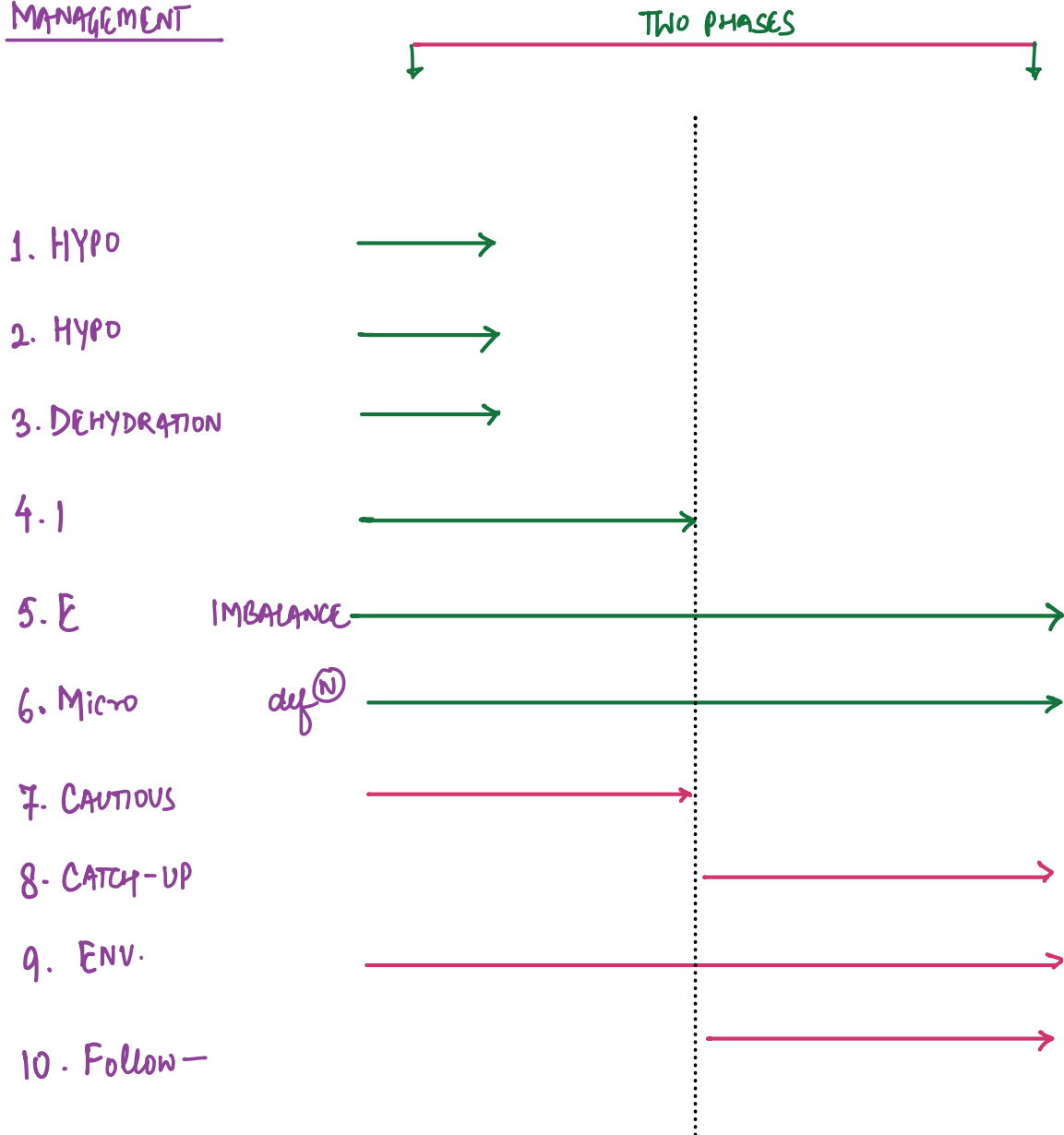
BEST (CHRONIC) :

SAM (SEV. ACUTE MAL^N)

DEFINITION

- (A) WEIGHT FOR length less than _____
OR
- (B) MUAC less than _____
OR
- (C)

MANAGEMENT





MILESTONES

GROSS MOTOR

3 MONTHS

6 MONTHS

with support

8 MONTHS

9 MONTHS

with support

10 MONTHS

12 MONTHS

with support

15 MONTHS

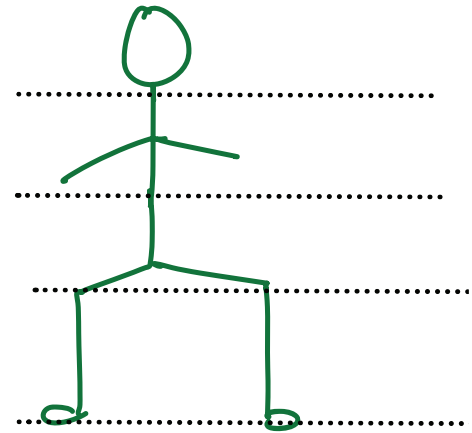
18 MONTHS

2 years

3 years

4 years

5 years



FINE MOTOR.

- 3 MONTHS PUTS HANDS INTO _____
- 4 MONTHS GRIP [BUT
- 5 MONTHS GRIP [N
- 6 MONTHS DEXTRIOUS GRASP
- 7 MONTHS DEXTRIOUS GRASP
- 9 MONTHS
- 12 MONTHS
- 15 MONTHS

DRAWING SKILLS

- 2 YEAR
- 3y
- 4y
- 4.5y
- 5 years
- 6-7 years

DRESSING & UNDRRESSING

- 9 years
- 11 years

SOCIAL MILESTONES

2 MONTHS SOCIAL

3 MONTHS RECOGNISES

6 MONTHS

7 MONTHS

9 MONTHS

1 YEAR.

15 MONTHS 2(P)

18 MONTH 2(D)

2 YEARS

3 YEARS

4 YEARS

LANGUAGE MILESTONES

2 MONTHS

3 MONTHS

4 MONTHS

6 MONTHS SYLLABIC

9 MONTHS SYLLABIC

12 MONTHS

15 MONTHS

18 MONTHS

24 MONTHS

3 YEARS 3 THING

4 YEARS

5 YEARS

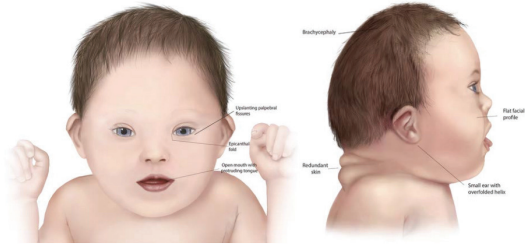
- o HANDEDNESS
- o R/L diffⁿ
- o BINOCULAR vision.



NOTES

GENETICS

DOWN SYNDROME



- ① EPICANTHAL _____
- ② UPWARD SLANT OF
P _____ FISSURE
- ③ _____ SET EARS
- ④ _____ FACIAL profile
- ⑤ _____ NASAL BONE
- ⑥ _____ TRANSVERSE CREASE
- ⑦ _____ TONE

ASSOCIATIONS

- ① CVS
- ② GIT
- ③ HEMAF
- ④ Endocrine Congenital

ANTENATAL SCREENING .

- | | | |
|--------|-------------|---|
| 1st TM | Dual TEST | ① |
| | | ② |
| 2nd TM | TRIPLE TEST | ① |
| | | ② |
| | | ③ |
| | | + |
| | | ④ |

Radiographic parameters

- ①
- ②
- ③

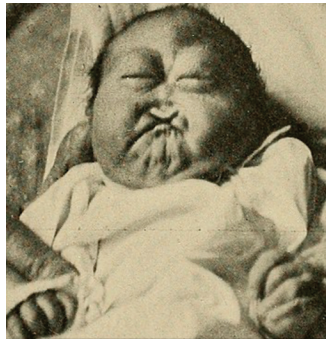
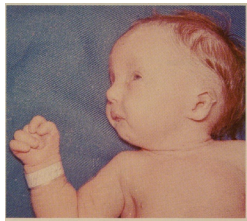
RADIO + DUAL TEST →

+ TRIPLE TEST → INT

EDWARD v/s PATAU.

EDWARD	PATAU-
TRISOMY	TRISOMY

ROCKER BOTTOM FEET
 CLEFT PALATE
 HOLOPROSENCEPHALY.
 FINGERS
 Kidney
 CUTIS APLASIA



TURNER v/s NOONAN

TURNER	NOONAN

GENOTYPE

PHENOTYPE

CNS

IQ.

FERTILITY





DIGORGE SYNDROME

defective formation

C

A

T

C

Y

-22

CONGENITAL INFECTIONS

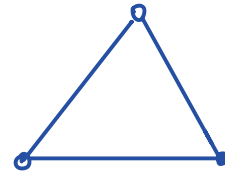
CONGENITAL TOXOPLASMOSIS

C

C

H

CONGENITAL RUBELLA SYNDROME



CONGENITAL CMV INFECTION

C

M

V

90% CASES

MOST COMMON

METHOD OF DETECTION →

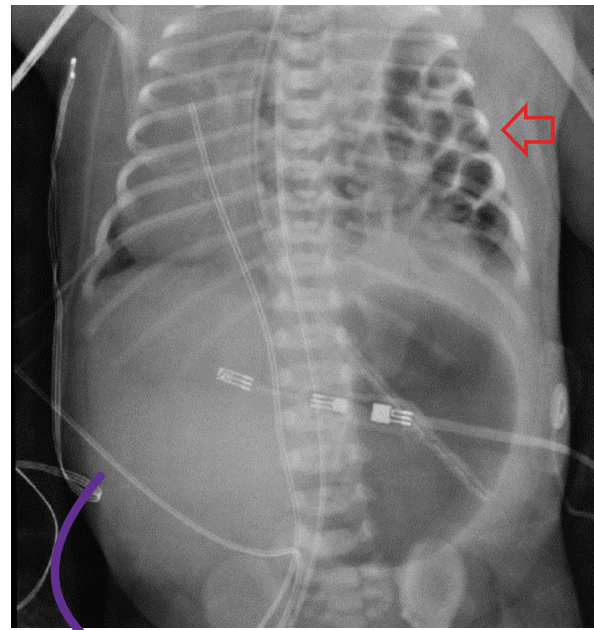
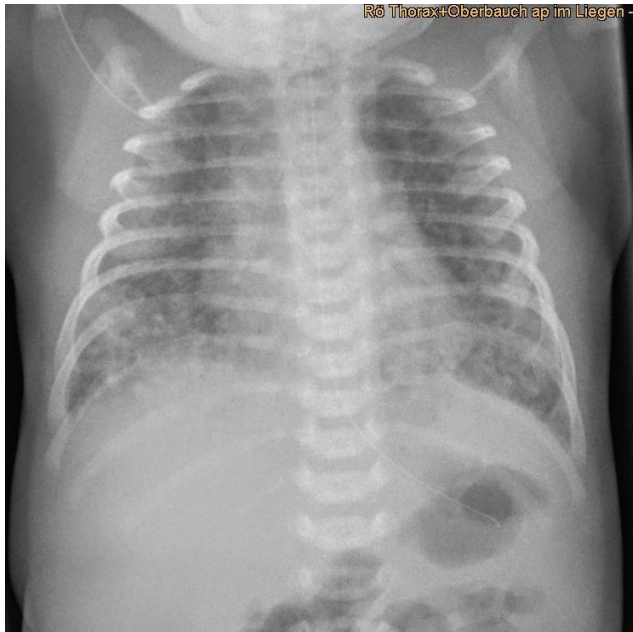
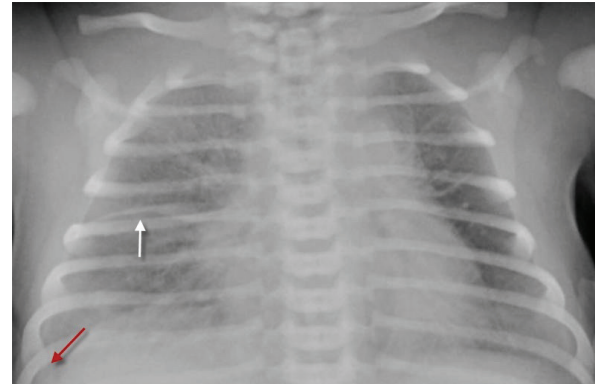
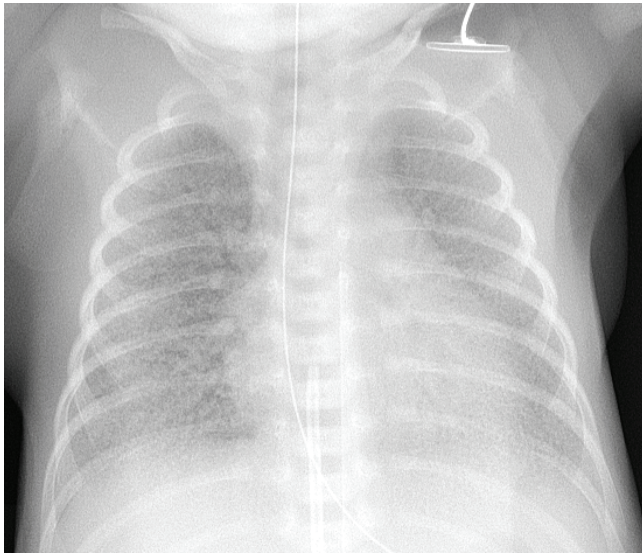
TREATMENT :



NEONATOLOGY

RESP DISTRESS IN NEWBORNS

DISORDER	CAUSE	XRAY	TREATMENT
RESPIRATORY DISTRESS SYNDROME	DEFICIENCY OF — RATIO	• •	PREVENTION ANTENATAL. • B ——— <i>methasone.</i> • D ——— TREATMENT
APNEA OF PREMATURITY	IMMATURITY OF		RULE OUT CAUSES ↓ DOC:
TRANSIENT TACHYPNEA OF NEWBORN	LACK OF OF ENAC CHANNEL ↓ RETENTION OF		
MECONIUM ASPIRATION SYNDROME	MECONIUM → A B ——— complete C ——— PARTIAL		



- | CONG. D | H |
|-----------|----------|
| M/C TYPE | M/C SITE |
| © BIRTH + | |

SCORES IN NEWBORN

Resp. distress { SILVERMAN ANDERSON
 DOWNES

SILVERMAN ANDERSON

	0	1	2
UPPER CHEST RETRACTIONS			
LOWER CHEST RETRACTION			
XIPHOID "			
NASAL FLARING			
GRUNTING			

DOWNNE'S SCORE

	0	1	2
Resp-			
Grunting			
R			
Air			
C			

APGAR

0

1

2

A

P

G

A

R

NEONATAL SEPSIS

M/C CAUSE →

RISK FACTORS

LONS (< HDL)

- 1.
2. Prolonged
3. Prolonged
- 4.
5. Asphyria
6. > 3
or
single

LONS (> HDL)

1. POOR HY
2. POOR C
3. BOTTLE

Gold STD:

SEPSIS SCREEN

High sensitivity / NPV. POOR SPECIFICITY.

4 components

- 1.
- 2.
- 3.
- 4.

2/4 →

TREATMENT

Supportive +
if meningitis



DURATION

1. Sepsis SCREEN ⊕
2. Blood C/S ⊕
3. (LP) Meningitis.

NEC (STAGING)

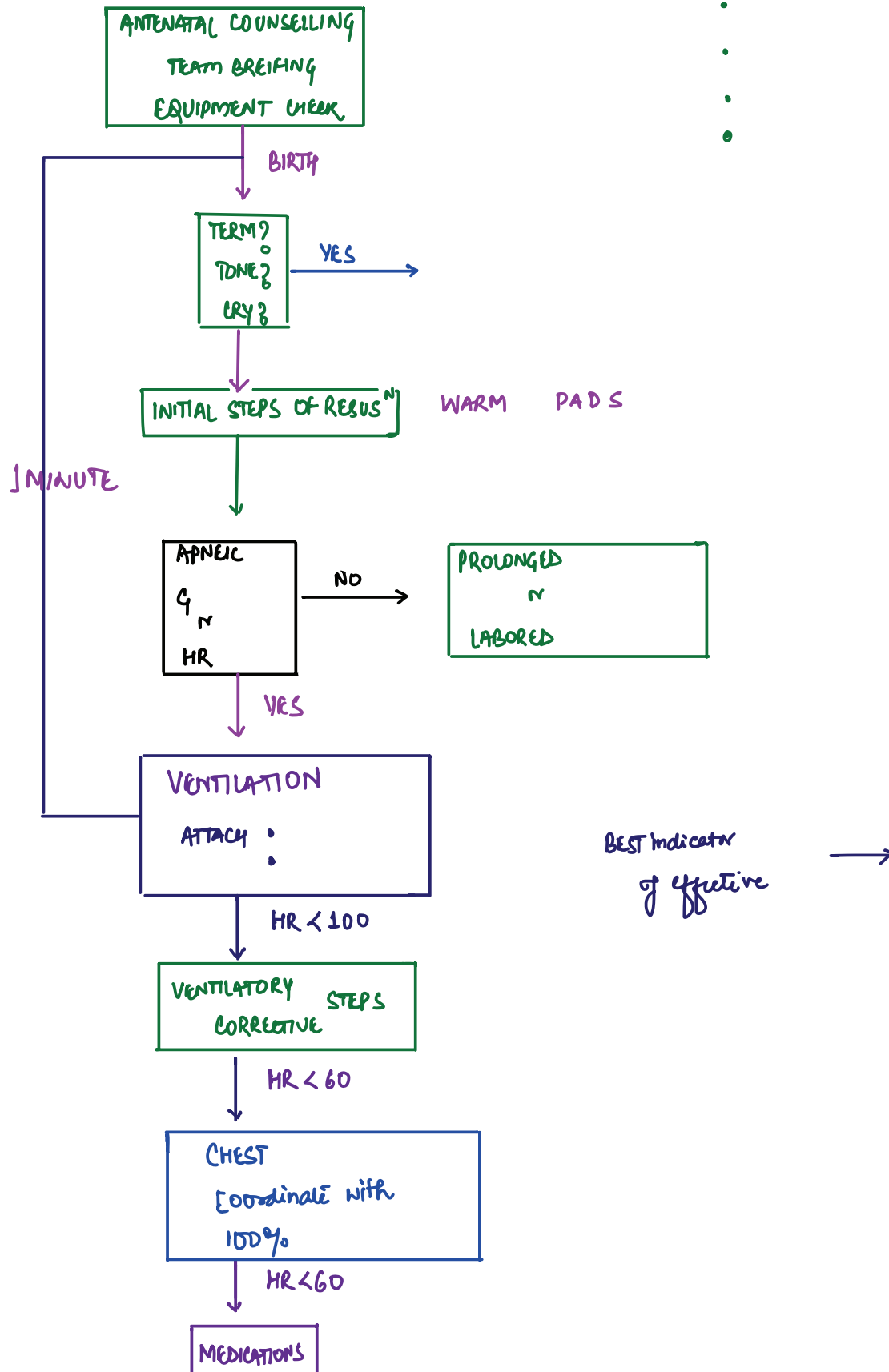
PROTECTION

	Bell	CHARACTERISTIC FEATURE	X RAY	PROTECTION
SUSPECT	I < A B	_____	_____	⊕ ⊖
Confirmed	II < A B	_____	_____	
Surgical	III < A B	_____	_____	



NEONATAL RESUSCITATION

4 ESSENTIAL PRE BIRTH QUESTIONS



VENTILATORY CORRECTIVE STEPS

M

R

S

O

P

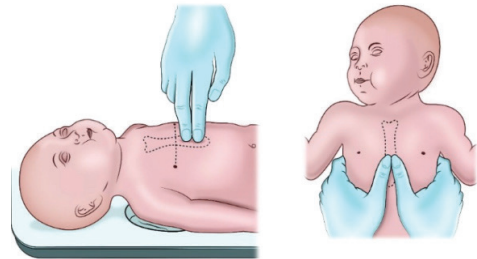
A

CHEST COMPRESSION

INDICATION:

RATIO:

TECHNIQUE



MEDICATIONS

INDICATION

DRUG

STRENGTH

DOSE

IV/IO

Intratracheal

Repeat every 3-5 min

↓ HR < 60

(A)

(B)

GIT AND SYSTEMIC PAEDIATRICS

Diarrhoea

M/C →
 BACTERIAL M/C →
 HIV →

ADULTS
↓

Diarrhoea MANAGEMENT

1. DEHYDRATION
2. ADMINISTRATION OF ZINC

DEHYDRATION

approx fluid loss.

NO

SOME

SEVERE

	NO	SOME	SEVERE
CONSCIOUSNESS	NORMAL		
THIRST	NORMAL		
SKIN PINCH	NORMAL		
EYES	NORMAL		

PLAN (A) No dehydration → Replace

WITH EACH LOOSE STOOL →

ORS

NA

GLU

K⁺

Cl⁻

CITRATE

PLAN (B) Some dehydration

Rehydrate →

OVER

+ Replace ongoing fluid losses.

PLAN (C) SEVERE

USE IVF →

150ml/kg
↓ ↓
TOTAL

>1YEAR

<1YEAR



Summarizing

	FLUID	AMOUNT	TIME.
No			
Some			
SEVERE			

MAINTENANCE FLUIDS

	AMOUNT	TIME
FIRST 10kg [1-10]		
11-20 kg		
> 20kg		

PNEUMONIA (IMNCI)

	CLINICAL FEATURES	TREATMENT
NO PNEUMONIA	<ul style="list-style-type: none"> • NO FEATURES OF _____ • Only cough or cold • 	
PNEUMONIA	<p>FAST BREATHING</p> <p>RR</p> <p>< 2 MONTH</p> <p>2-12 MO</p> <p>> 12 MO</p> <ul style="list-style-type: none"> • 	
SEVERE PNEUMONIA	<ul style="list-style-type: none"> • STRIDOR in an OTHERWISE <p>or</p> <p>① Temp ③ L</p> <p>② SpO₂ ④ S</p>	

CYSTIC FIBROSIS

GENE:

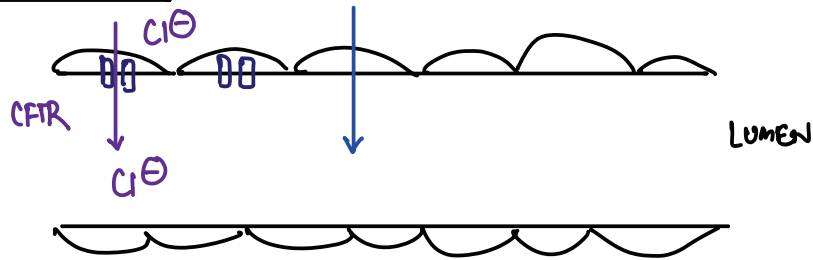
CHROMOSOME 7

M/c MUTATION:

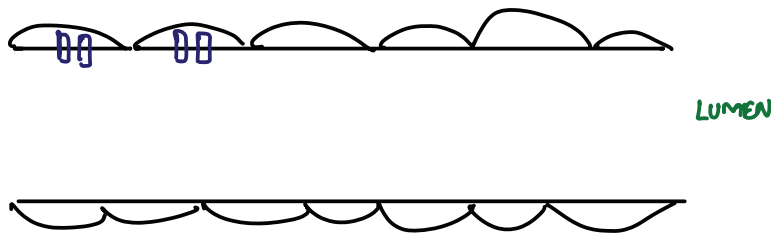
FUNCTION

CONDUCTANCE CHANNEL

AIRWAY/PANCREAS



SWEAT GLANDS



CLINICAL FEATURES

1. AIRWAY - Recurrent- URTI
↳ BRONCHIECTASIS M/c →
2. EXOCRINE pancreatic insufficiency LEADS TO
3. Intestinal → DIOS / Rectal prolapse
4. Congenital absence of vas deferens.

DIAGNOSIS

ANY 1 of the following

- (A) SWEAT Cl^- > Meq/L
on two or MORE OCCASIONS
- (B) _____
- (C) _____ NASAL POTENTIAL DIFFERENCE

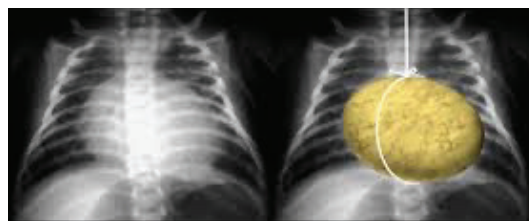
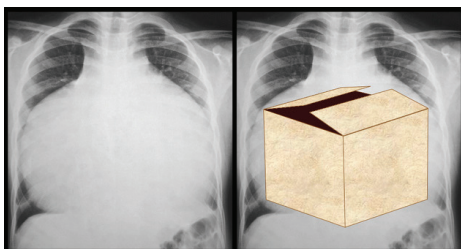
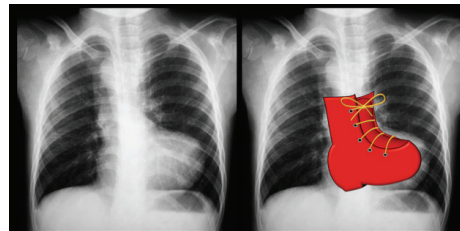
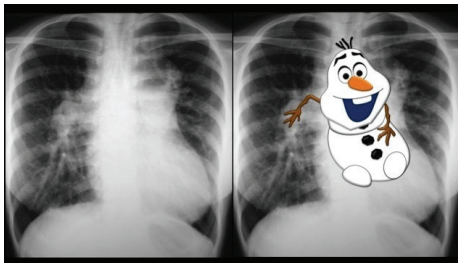
TREATMENT

- 1. CHEST PHYSIOTHERAPY
- 2. _____ ENZYME REPLACEMENT
- 3. NEWER DRUGS
 - A. _____ - CAFTDR
 - B. _____ CAFTDR

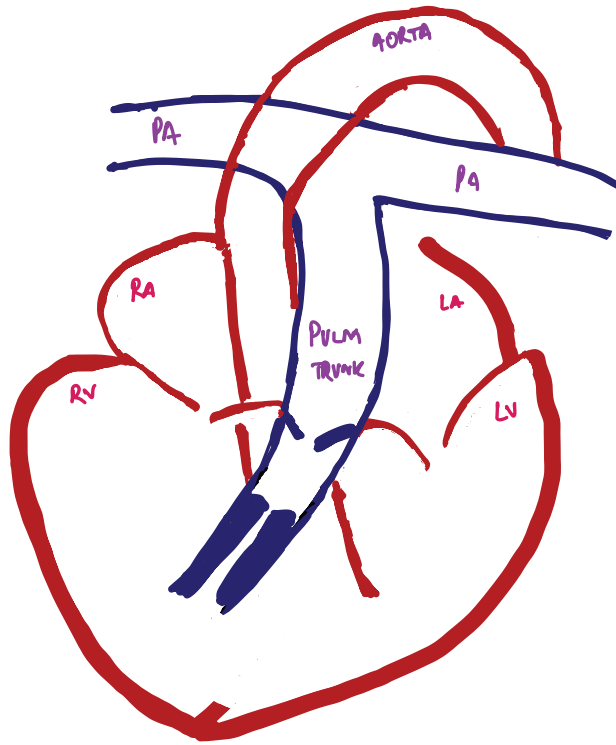
CONGENITAL HEART DISEASE

NADA'S CRITERIA

- | | | | |
|------------------|----|------------------|----|
| <u>MAJOR (1)</u> | OR | <u>(2) MINOR</u> | |
| 1. | | 1. | 5. |
| 2. | | 2. | |
| 3. | | 3. | |
| 4. | | 4. | |



TETRALOGY OF FALLOT



CYANOSIS

MURMUR



NEPHRITIC & NEPHROTIC SYNDROME

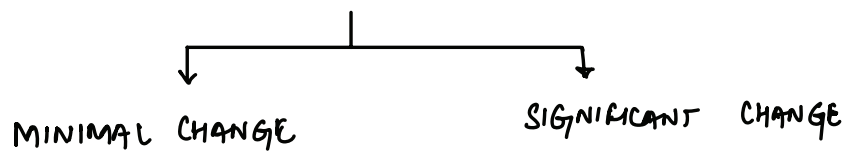
NEPHRITIC Syndrome - Glomerulonephritis

- HALLMARK
- PROTEIN + ↑sed.
- RBC }
 - dysmorphic }

M/C:

NEPHROTIC Syndrome

1. _____ RANGE _____ → $\frac{U_p}{U_c} > ; > \text{mg/m}^2 \text{ PER HOUR}$
PROTEINURIA
2. HYPO _____ .
3. GENERALISED



LM

EM

AGE

HTN

PROGNOSIS

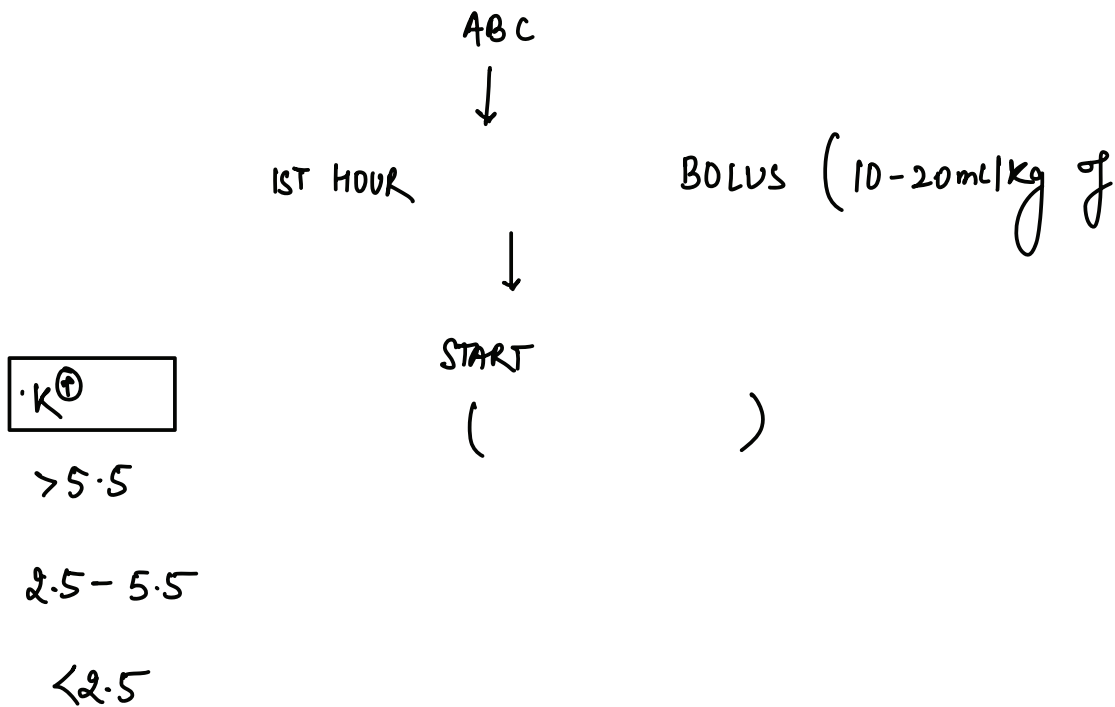
DOC:

DKA in children

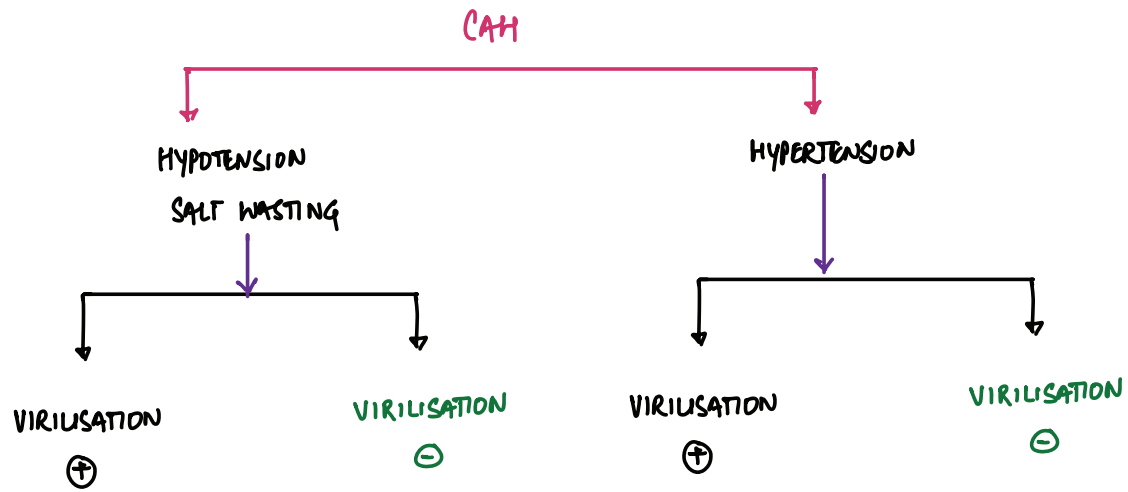
- all 3
- ① RBS >
 - ② pH <
 - ③ ⊕ of

DKA (SEVERITY)	HCO ₃ [⊖]	pH
MILD		<7.3
MOD		<7.2
SEV		<7.1

MANAGEMENT



CONGENITAL ADRENAL HYPERPLASIA



Imp Epilepsy Syndromes

	Age group:	CLINICAL FEATURE	TREATMENT
JANZ (JUVENILE myoclonic epilepsy)	Adolescent- females.	TRIGGERS → (A) (B)	
WEST Syndrome	Infancy		
SMEI / DRAVES (Sev. Myoclonic epilepsy of Infancy)	onset ↓ Infancy		
Lennox GASTAUT	2-8y		

RAPID FIRE IMAGE



Diphtheria

TDxin inhibits

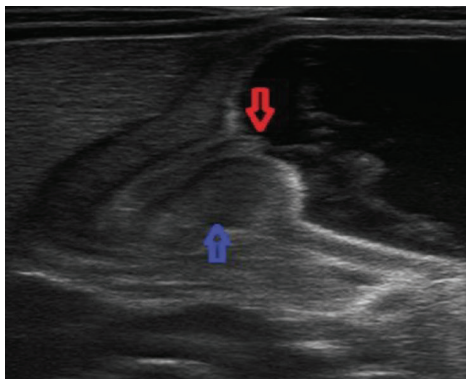
Complication:

vaccine



TONGUE

1. C
2. R
3. E
4. A
5. M





- M/C SITE
- LACK of plexus - defective
- IOC :



- shaped Epiglottis
- M/C CAUSE of STRIDOR <



the DISEASE
aka ERYTHEMA

-
- ①
 - ② Non Immune
 - ③ NON ERO



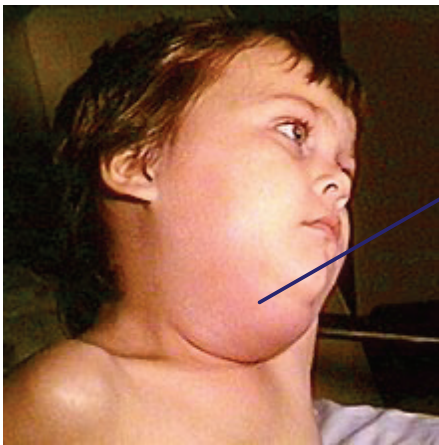
M/C complication

most-common cause of death

LATE complication

TREATMENT

VACCINE:



ADULTS

VACCINE:



NOTES



NOTES