NEKUDOT NEONATOLOGY

TOC

Inutero

- 30-weeks gestation - nml weighs 1100–1800 g (mean ± 2 SD)
- 34-35 weeks gestation - sufficient levels of surfactant;
- Twin-to-twin transfusions - monochorionic twins; donor twin - oligohydramnios, anemia, hypovolemia; recipient twin - polyhydramnios, plethora, larger than the donor twin. hyperviscosity, respiratory distress, hyperbilirubinemia, hypocalcemia, renal vein thrombosis, CHF, convulsions.
- IUGR - ass w/ ↑ risk for the child to develop DM, HTN in adulthood;
- Phocomelia - congenital deformity; associated w/ thalidomide; defect of long bones;

Postnatal

- Maturity - Preterm: <37 wk (African American > Caucasians); Term: 37-42 wk; Post-term: >42 wk
- Preterm - presentation: lanugo hair, rudimentary nails, no palpable breast tissue, gaping labia, undescended testes; Complications: chronic lung disease, sepsis, NEC, iron deficiency;
- Birth weight - LBW: <2,500 g; VLBW <1,500 g; Extremely low (ELBW): <1,000 g;
- Birth weight/Length for Gestational Age - SGA <2 SD; Appropriate: w/in 2 SD; Large: >2 SD;
- First week weight flux - dilute urine + low fluid intake → ↓ 5%–10% (140–200 gr) of birth weight (10%–15% in premature);
- Umbilical cord stump - slough off 10 d postpartum;
- Fetal death - death prior to birth;
- Neonatal death - death w/in 28 days of birth
- Neonatal mortality - highest in 1st 24 h; ♂ > ♀; caucasians > African Americans; highest than any other period in childhood; causes: preterm and postterm, LBW, congenital anomalies; mortality ↓ as maturity, birth weight ↑; 5-min Apgar 0–3, pH ≤ 7.0
- Perinatal deaths - sum of the fetal and neonatal death rate per 1,000 live births
- Neonatal hypoglycemia - < 50 mg/dL

Feeding

- Caloric need of a nml full-term infant - 100 kcal/kg/d
- Milk

Breast Milk	cross into milk: Antimetabolites, Bromocriptine, Chloramphenicol, diazepam, Ergots, Gold, Metronidazole, Tetracycline, Lithium, Cyclophosphamide, drugs (cocaine, heroin), amphetamines (ritalin); secretory IgA;
Goat's milk	folate deficient; risk: megaloblastic and B12 def anemia, if not pasteurized → brucellosis;
Cow's milk	iron deficient;

- Strict vegetarian diet - deficient: protein, D, ribo avin, iron, vit B12;

Substances

- Narcotics analgesia - risk for respiratory depression; Tx: ABCs, naloxone;

Ortho/Trauma

- Osteogenesis imperfecta - clinic: multiple frxs.
- Clavicular frx - Clinic: crepitus, bump (callus formation) at >1w, pseudoparalysis (dDx Erb-Duchenne)
- Caput succedaneum - serous subcutaneous edema, ± cross suture lines;
- Cephalohematoma - subperiosteal hematoma; limited to a single bone; monitor: bilirubin levels;
- Subgaleal hemorrhage - dDx transmidline cephalohematoma; Clinical - ± complications; Tx - monitor at ICU, ± fluids
- Scaphocephaly (long and narrow skull) - etio: sagittal suture synostosis;
- Congenital clubfoot (talipes equinovarus) - isolated, ± ass. w/ CNS abn. (myelomeningocele), genitourinary abn.
- Pierre Robin sequence - clinic: micrognathia, glossoptosis, airways obstruction; Tx: tracheostomy
- Potter Sequence - Etiology: Renal agenesis/dysgenesis → oligohydramnios → fetal compression (mid-face, ears - Potter facies), pulmonary hypoplasia
- Developmental dysplasia of the hip (DDH) - can develop in 1 y; risk: ♀, breech; ✓ on every visit ortolani, Barlow maneuvers; screening: hip US at 6 w;

Hematology

- Passively transferred maternal IgG - nadir at 3–6 m;
    - Transient hypogammaglobulinemia of infancy - exhaustion of maternally IgG; clinic: several months vulnerable to infx → improve as immune systems mature;
- Hyperviscosity syndrome - Risk: placental insufficiency → compensation polycythemia; clinic: tonic-clonic activity, ± sz (frank thrombosis), renal vein thrombosis, NEC, tachypnea; Tx: exchange transfusion (saline, Ringer);

- Rh incompatibility - 1st preg. - Rh+ fetus sensitise Rh– mother → IgM → IgG → 2nd preg. - hemolysis of Rh+ fetus; ppx sensitization - RhoGAM at 28w + at delivery; Dx: ⊕ Coombs;
- ABO incompatibility - patho: moms (O) IgG attack fetus (A or B); clinic: jaundice, ± spherocytes
    - Late-onset chronic anemia in ABO isoimmune hemolytic - complication: high-output CHF (tachypnea, poor feed)
- Kleihauer-Betke test - ✓ fetal Hb + RBC in the maternal blood;
- Iron deficiency anemia - risk: preterm;
- Erythroblastosis fetalis - transplacental passage RBC Ig; Clinic: hydrops, fetal distress, ± death; Tx: intrauterine transfusion;
- Fanconi anemia - AR; clinic: short stature, café au lait spots, hands and arms deformation (absent thumb, radius), pancytopenia; risk: leukemia;
- Intrauterine transfusion - (blood into the fetal umbilical vein under U/S); complications: premature labor, rupture of membranes, chorioamnionitis; fetal death, bleeding, bradycardia;
- Early vitamin K deficiency bleeding (VKDB), hemorrhagic disease of the newborn (HDN) - ↓ vit K → K–dependent clotting factors (II, VII, IX, X) failure; pPx: single 1-mg IM or 2mg PO vit. K postpartum;
- Hemophilia (A -VIII 85%; B - IX) - X-linked; slowing of rate of clot formation; clinic: easy bruising, hemarthroses; labs: ↑ PTT, ✓ mixing studies;
- Thrombocytopenia w/ absent radius (TAR) syndrome -

Gastro

- Apt-Downey test - dDx fetal from adult Hb in malena
- Hirschsprung disease - clinic: fail to pass meconium >48 h; later small-caliber, thin appearing stools
- NEC - Tx: NPO, IV fluids, ABX, AB; Complication → surgery
- VATERL association - Vertebral Defects, Imperforate Anus, Tracheoesophageal Fistula, Radial And Renal Dysplasia, Limb Anomalies
- Cleft lip and palate - Complications: recurrent otitis media, hearing loss, speech defects. Tx: cleft lip at 2-3m; cleft palate at 6m-5y
- Gastroschisis - Centrally located full-thickness abd wall defect (a) w/o protective covering; No syndromic association
- Omphalocele - Herniation of abdominal contents into base of umbilical cord; ass. Conditions: Beckwith-Wiedemann, trisomies, chromosomal abnmlities, CDH;
- Congenital diaphragmatic hernia (CDH) - left side common via posterolateral defect (Bochdalek hernia); clinic: pulmonary hypoplasia → respiratory failure + pulmonary HTN, scaphoid abdomen, heart displacement; Tx: decompression → NG tube, intubation;
- Pyloric stenosis - Dx: “string” sign = narrowing of barium stream passing via duodenum; “umbrella” sign = hold-up of barium in the stomach;
- Beckwith-Wiedemann syndrome - clinic: omphalocele, severe hypoglycemia, macrosomia, macroglossia; risk: tumors (hepatoblastoma, Wilms)
- Bilirubin excretion in utero - transplacental passage
- Breast milk jaundice - (unconjugated bilirubin); clinic: jaundice at 5th d. persists 4–14 d;

Infections

- Neonatal infxs: risk: prematurity, prolonged rupture, intrapartum fever, chorioamnionitis, UTI
- Listeria infx - clinic: hypothermia, pallor, pneumonia, delayed capillary refill, pinkish-gray granular rash; risk: cheeses, hot dogs; “granulomatosis infanti septicum” - respiratory distress + septic shock; Tx: ampicillin, aminoglycoside; bad prognosis.
- Gonococcal conjunctivitis - (most common) onset 2-5d postpar; corneal ulceration, perforation, blindness; Tx AB
- Chlamydial conjunctivitis - onset 5-14d postpar.; Tx: AB
- HIV transmission to newborn - ppx: zidovudine;
- Newborn to HBV ⊕ mother - Dx: ✓ DNA PCR in 1st 48h; Rx: HBV Ig, + vaccine;
- Neonatal group B streptococcal disease - pPx: penicillin 4h prior delivery;
- Neonatal meningitis - etio: group B streptococci (GBS) > E.coli > L. monocytogenes;
- Oral candidiasis (thrush) - ± bening; Tx: oral nystatin suspension;

TORCH - Clinic: all can present w/ IGUR, hepatosplenomegaly, petechiae, jaundice, thrombocytopenia, anemia;

- Toxoplasmosis - hydrocephalus w/ generalized calcifications and chorioretinitis
    - Congenital Toxoplasmosis - triad: hydrocephalus, chorioretinitis, intracranial calcifications (cortex); szs;
- Rubella - the classic findings of cataracts, deafness, and heart defects
    - Congenital rubella syndrome - before 17 weeks (MC in 1st 4 w); clinic: cataracts, blueberry muffin spots, cardiac lesions, sensorineural hearing loss;
- CMV - aSx (90%) → sensorineural hearing loss; microcephaly w/ periventricular calcifications; extramedullary [dermal] hematopoiesis → petechiae (“blueberry muffin”) + thrombocytopenia; Dx: (in utero) US → amniotic fluid PCR.
- Herpes - skin vesicles/scaring, keratoconjunctivitis, acute meningoencephalitis, cortex calcifications, chorioretinitis;
- Syphilis - osteochondritis and periostitis; skin rash involving palms and soles and is desquamating; snuffles (mucopurulent rhinitis)
    - Congenital syphilis - Clinic: pallor, jaundice, hepatosplenomegaly (syphilitic hepatitis), diffuse rash (bullous, infiltrative, maculopapular peeling - face, palms, soles), nasal discharge (serous, ± purulent, blood-tinged discharge “snuffles”); metaphyseal lucencies; ± first few weeks-months aSx; ± hemolytic anemia ± saddle nose; interstitial keratitis (photophobia, lacrimation, corneal haziness, scarring). Hutchinson teeth,mulberry molars; Dx: ✓ rapid plasma regain (RPR)

Dz	Clinic
Toxoplasmosis	intracerebral calcifications, hydrocephalus, chorioretinitis, microcephaly, severe mental retardation, epilepsy, IUGR, hepatosplenomegaly
Rubella	IUGR, cataracts, glaucoma, chorioretinitis, PDA, pulmonary stenosis, atrial or ventricular septal defect, myocarditis, microcephaly, hearing loss, blueberry muffin rash," mental retardation
CMV	microcephaly, intracranial calcifications, severe mental retardation, chorioretinitis, IUGR
HSV	vesicles, seizures, respiratory distress can cause pneumonia, meningitis, encephalitis → neurologic development after resolution
Syphilis	• early dz = jaundice, ↑ liver function tests, hepatosplenomegaly, hemolytic anemia, rash followed by desquamation of hands and feet, wart like lesions of mucous membranes, blood-tinged nasal secretions (snuffles), diffuse osteochondritis, saddle nose (2° to syphilitic rhinitis) • late dz = Hutchinson teeth (notching of permanent upper two incisors), mulberry molars (both at 6 yrs), bone thickening (frontal bossing), anterior bowing of tibia (saber shins)

Dz	Clinic
Toxoplasmosis	hydrocephalus, chorioretinitis, intracranial calcifications (cortex)
Rubella	cataracts, blueberry muffin spots, PDA, sensorineural hearing loss
CMV	sensorineural hearing loss; microcephaly; periventricular calcifications
HSV	skin vesicles/scaring; microcephaly w/ periventricular calcifications
Syphilis	“Snuffles”; metaphyseal lucencies

Respiratory

- Surfactant - produced by type II alveolar cells in 3rd trimester (16 w: synthesis, storage; 28-38w: secretion); stored in lamellar bodies; function: ↓ alveolar lining surface tension → stabilize the alveoli; ✓ lecithin–sphingomyelin ratio of amniotic fluid (low risk for RDS - 2:1);
- Asphyxia - hypoxic, acidotic, hypercapnic; bradycardia, ± anal sphincter relaxation → meconium, hypothermia, narcosis, brain hemorrhage, metabolic acidosis;
- RDS - pathophysiology: ↓ lung compliance + vol., R→L shunt; clinic: tachypnea, retractions, cyanosis, grunting; Dx: CXR - diffuse reticulogranular changes, air bronchograms; Tx: CPAP to ↑ PO2 (risk: retinopathy of prematurity), surfactant via endotracheal tube; Complications: ROP, BDP
    - Bronchopulmonary dysplasia (BPD) - ventilation, high [O2] → chronic changes; Dx: oxygen-need test - ⊕ if off canule, can't maintain saturations > 91-93%; long-term prognosis: ± airway hyperresponsiveness, ± impaired gas exchange; GERD; post NICU Rx: RSV pPx (palivizumab);
- Pulmonary hypoplasia - etio: oligohydramnios = amnion nodosum (granules on the amnion) (Potter sequence); clinic: dysmorphic child (widely spaced eyes, low-set ears, broad nose, receding chin, limb abnmlities), bilateral renal agenesis. respiratory distress; not compatible w/ life.
- Bronchiolitis - etio: respiratory syncytial virus; epid: winter; clinic: fever, wheezing, hypoxia, respiratory distress
- Cystic fibrosis - AR inheritance; risk: 25% rpt in future preg. (greatest recurrence risk); clinic: meconium ileus
- Pneumothorax - clinic: tachypnea, cyanosis, and bradycardia (Tension PTX + shock);

Genetics, metabolism

- Advancing maternal age - ↑ risk for nondisjunction chromosome disorders (failure of a chromosome pair to separate)
- Advancing paternal age - ↑ risk autosomal dominant disorders
- Mitochondrial inheritance - follow a maternal line of inheritance;
- Maple syrup urine disease - clinic: caramel/maple syrup odor; Tx: diet ↓leucine, isoleucine, valine.
- Phenylketonuria - AR genetic; ↑ phenylalanine → mental retardation if no Tx; Tx: diet w/ low phenylalanine, control serum [];
- Galactosemia - AR deficiency in enzymes → accumulation of glactose-1-phosphate and galactitol (nonglucose reducing substances); clinic: cataract, jaundice & liver dysfunction, HSM, food intolerance, hypoglycemia; Tx: Galactose-free formula; risk for E.coli sepsis
- Hereditary tyrosinemia (disorder of amino acid metabolism) - fumarylacetoacetate accumulation, hepatocellular dysfunction (direct hyperbilirubinemia);
- Pyridoxine dependency - rare; clinic: szs; Tx - pyridoxine;

ABNORMALITIES OF CHROMOSOMES

"PEDs pts's grow older 13,18,21"

- Patau Syndrome (Trisomy 13) - Findings: Holoprosencephaly and other CNS defects; Severe mental retardation; Microcephaly; microphthalmia; Severe cleft lip, palate, or both; Scalp defects in parietal-occipital area (cutis aplasia); Postaxial polydactyly
- Edwards Syndrome (Trisomy 18) - Second most common; Findings: Mental retardation, Low-set, malformed ears; microcephaly, micrognathia; prominent occiput; Clenched hand—index over third; fifth over fourth; Short sternum; VSD, ASD, PDA, cyanotic lesions; Rocker-bottom feet, hammer toe; Omphalocele;
- Down Syndrome (Trisomy 21) - most common; Genetics: advancing maternal age; Findings: "My CHILD HAS a PROBLEM" - Cardiac anomaly (ECD > VSD > PDA, ASD; also MVP), cataracts; Hypotonia, Hypothyroidism; Increased gap between toes; ALL; duodenal atresia; Hirschsprung, Hearing loss (sensorineural, conductive, and mixed); Atlanto-axial instability; short neck; palmar crease; round face; oblique palpebral fissures; Brushfield spots (speckling of iris); Low nasal bridge; epicanthal folds; Mental retardation; Prenatal screening: ↓ α-FP, ↑ hCG, ↓ uE
- Aniridia–Wilms Tumor Association (WAGR ±"O" Syndrome - deletion of 11p13) - Wilms + Aniridia (PAX6) + GU anomalies + MR + obesity; Highest risk of Wilms' (compared to independent aniridia or GU defect)
- Klinefelter Syndrome (XXY) - Findings: Decreased IQ, Behavioral/psychiatric problems; Long limbs; Hypogonadism and hypogenitalism;
- Turner Syndrome (XO) - CLOWNS: Cardiac (Bicuspid aortic valve [most common], Coarctation); Lymphedema; Ovaries not developed (amenorrhea, sterility); webbed posterior neck; nipples wide-spaced, broad chest; short; other findings: puffiness over dorsum of fingers and toes; Low posterior hairline; Cubitus valgus (elbow) and other joint problems; Horseshoe kidney and other renal defects; Natural history: Estrogen treatment indicated; May increase height by 3−4 cm w/ growth hormone (GH);
- Turner syndrome - Prenatally - nuchal cystic hygroma, horseshoe kidneys. At birth - low weight, short stature, edema (hands and feet), neck loose skin folds, sexual infantilism, streak gonads, typical faces, shield chest, low hairline, CoA, HTN, bicuspid AV, high palate; CNS Sx; vascular instability - harlequin color change (red and pale halves); craniotabes;
- Noonan Syndrome - 12q24 (PTPN11) AD; clinic: hyperelastic skin, neck webbing, ptosis, low-set ears, short stature, pulmonary stenosis, small testes;
- Alagille Syndrome - 20p12 (JAG1); clinic: butterfly vertebra; HCM;
- Fragile X Syndrome - Findings: Mild to profound mental retardation; learning problems; Large ears, dysmorphic facial features, large jaw, long face; Large testes—mostly in puberty (macroorchidism)(fertile);

- Beckwith-Wiedemann Syndrome - Findings: ("Bickey tends to get bigger") Macrosomia; Macroglossia—may need partial glossectomy; Pancreatic beta cell hyperplasia—excess islets → hypoglycemia; omphalocele; Hemihypertrophy; Management: obtain ultrasounds and serum AFP every 6 months through 6 years of age to look for Wilms tumor and hepatoblastoma
- DiGeorge syndrome -CATCH 22: CHD (conotruncal defects), abnml faces, thymic hypoplasia → ↓ T-Cell Function, cleft palate, Parathyroid hypoplasia → hypocalcemia → convulsions and tetany;
- Prader-Willi Syndrome (deletion of 15q11q13) - genetics: Paternal issue; nml process of imprinting, epigenetic; monoallelic gene expression; functional haploid state (male germ cell → Prader-Willi syndrome; female germ cell → Angelman syndrome); Findings: Obesity—onset from 6 months to 6 years, Mild to severe mental retardation, Food-related behavioral problems (binge eating), Small hands and feet, puffy; small genitalia; Hypothalamic—pituitary dysfunction (growth, thyroid, adrenal) hypogonadotropic-hypogonadism;
- Angelman Syndrome (Happy Puppet Syndrome) - Genetics: maternally derived; Findings: Severe MR, Paroxysms of inappropriate laughter, Absent speech or <6 words (100%); most can communicate w/ sign language, Ataxia and jerky arm movements resembling a puppet's movements (100%)

  "POP and MAMA: Prader-Willi, Overeating, Paternal and Maternal, Angelman, Mood (happy), Animated movements"
- Wiskott-Aldrich syndrome - "WAX TIE": X-linked; thrombocytopenia; infxs; eczema; W = M downwards = ↓ IgM;
- Williams syndrome (deletion of the 7q) - clinic: short stature, hypercalcemia, hypercalciuria; developmental delay; dysmorphic features; friendly personality; supravalvular aortic stenosis.

Endo

- Congenital hypothyroidism - etop: thyroid agenesis, (MCC) dysgenesis (a-/dys-/hypoplasia), enzymatic defects; clinic: umbilical hernia, distended abdomen, ± large head, ± hypothermic, feeding difficulties; constipation (fail to pass meconium >48 h), ± jaundice. ± bradycardia, anemia; ✓ T4 and TSH; if not Tx: epiphyseal dysgenesis
- Neonatal thyrotoxicosis - etio: mom's untreated Graves
- Infants to mothers w/ hyperparathyroidism - clinic: transient hypoparathyroidism (hypocalcemia, hyperphosphatemia)
- Congenital adrenal hyperplasia - asso. w/ 21-hydroxylase deficiency
- Infants to diabetic mothers (IDM) - clinic: macrosomia, hypocalcemia, hypoglycemia ± HCM;

Nephro

- Renal agenesis - Sx: Oligohydramnios; genital tract defects, low-set ears, other anomalies.

ENT

- Sensorineural hearing loss - Infec: TORCH (CMV, toxo, syph) - delayed onset; meningitis; severe Hyperbilirubinemia; Aminoglycosides in comb w/ ototoxic Rx; chemo;
- Choanal atresia - Tx: oral airway ± prone position;

Neurology

- Infantile Reflexes - ⊕ at birth ⟶ disappear ± 4-6 m;

Reflex	Description
Moro	Abrupt head extension causes extension and flexion of the limbs.
Grasp	Placing finger in child's hand causes child to grasp it.
Rooting	Perioral stimulation causes the infant to move its mouth toward the stimulus.
Placing	Placing child feet-first on a surface cause child to place feet on it.
Tonic neck	Turning child's head results in the extension of the ipsilateral arm and leg (fencing posture).

- Neurologic abnmlities - risk: low Apgar + szs in 1st 36 h;
- Kernicterus - toxic effects of unconjugated bilirubin (at high [], crosses BBB) to basal ganglia; ass. w/ ↓ serum [albumin], prematurity, sepsis, isoimmunization.
- Erb-Duchenne paralysis - C5-C6; LGA, labor/delivery complications; clinic: arm - internally rotated; forearm - extended, pronated; don't move spontaneously, ↓ reflex. Ipsilateral phrenic nerve palsy;
- Klumpke paralysis - C7-T1; palsy ± Horner;
- Hypoxic-ischemic encephalopathy - clinic: szs (most common etio)
- Neurofibromatosis - ⊕ fm. Hx for szs; clinic: hypopigmented patches (cafe au lait spots later)
- Encephalocele - anterior neural tube defect ⟶ meninges herniation ± w/ brain
- Periventricular leukomalacia (PVL) - focal necrotic lesions in the periventricular white matter; Dx: Sx >1 m, Cranial US - echo densities, ± cystic lesions surrounding the lateral ventricles; risk: preterm <32 w;
- Arteriovenous malformation - clinic: CHF, head ausc. cranial bruit (common: great vein of Galen)
- Neonatal stroke - etio: 2/3 arterial, 1/3 sinovenous thrombosis; risk: preeclampsia, instrumented delivery; clinic: Sx after birth;
- Postnatal strokes - ass. CHD

Dermatology

- Erythema toxicum - benign; term infants > premature; clinic: rash (macules, wheals, pustules) appear in 1-3d, no systemic Sx; involution < 7 d
- Transient neonatal pustular melanosis - benign; located on the chin, forehead, neck, lower back; initially pustules w/o erythema ⟶ ruptured w/ scale surrounding a hyperpigmented macule; last 3 m;
- Staphylococcal scalded skin syndrome - (toxin-mediated of S.aureus) clinic: bullous impetigo, scarlatiniform erythematous rash, systemic sx; conjunctivitis, pharyngitis, pneumonia; infx foci: nasopharynx, umbilicus, UTI, superficial abrasion, blood (rarely); Dx: culture of bulli fluid to dDx, Nikolsky sign: pressure ⟶ epidermis separation; Tx: semisynthetic penicillinase-resistant penicillin
- Subcutaneous fat necrosis - violaceous, circumscribed, nodules above trauma (forceps)
- Incontinentia pigmenti - rash: inflammatory bullae (present at birth - 2 w) ⟶ hyperpigmented lesions; clinic: mental retardation, szs, other organ system anomalies (eg, eye, skeletal);
- "Blueberry muffin" rash - dermal erythropoiesis ⟶ macular, raised, purple lesions; assoc.: rubella, CMV;
- Sturge-Weber syndrome - clinic: facial port-wine stain (do not regress, ± unilateral, upper face), tonic-clonic szs, hemiparesis, mental retardation, ocular: buphthalmos, glaucoma; dDx: salmon patch; Head X-ray (calcification "railroad pattern"), ipsilateral brain atrophy; Tx: hemispherectomy/lobectomy ⟶ szs control;

Ophthalmology

- Retinopathy of prematurity (ROP, retrolental fibroplasia) - etio: hypo-, hyperoxia (Tx of RDS); risk: acidosis, apnea, anemia, nutritional status, cerebral perfusion; pathophysiology: retinas not fully vascularized ⟶ ↑ O2 ⟶ higher oxygen tension in the retina ⟶ abnml angiogenesis into vitreous ⟶ block the light ⟶ prognosis: blindness; pPx: eyes shielding;
- Red reflex - red reflection of the retina; abnl = cataract, glaucoma, retinal tumors;
- Cataract - dDx: developmental disorders, infxs, metabolic (galactosemia)
- Aniridia ⟶ ✓ abd US to r/o renal abnmlities or Wilms tumor;