Block L quick revision points

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* silicosis - snow storm appearance
* anthracosis - chronic bronchitis
* byssinosis - chronic bronchitis and emphysema
* bagassosis - mottling in lungs, diffuse fibrosis if left untreated
* asbestosis - diffuse interstitial pulmonary fibrosis; ground glass appearance on X Ray
* Disability-adjusted life years (DALYs): years of life lost due to disease, disability, and/or premature death
* Quality-adjusted life years (QALYs): number of years a person is expected to live corrected for loss of quality of life caused by diseases and disabilities
* Population pyramid - a graphical representation of age and sex distribution in a population
* Fertility rate: the number of live births among women of childbearing age (15–44 years) in a population within a specific time interval
* Health-adjusted life expectancy: average number of years a person is expected to live in full health
* WHO does NOT recommend typhoid and cholera vaccines use in routine care during disasters
* First priority of ensuring water quality in emergency is chlorination
* Sewage - have excreta

Sullage - no excreta

* Normal creatinine = 0.8
* chronic kidney disease = 2
* end stage renal disease = 4
* coal dust - anthracosis
* silica - silicosis
* iron - siderosis
* asbestos - asbestosis
* cane fiber - bagassosis
* cotton dust - byssinosis
* hay or grain dust - farmer's lung
* Kwashiorkor is characterised by muscle atrophy, pitting edema and distended abdomen with an enlarged fatty liver. It is caused by deficiency of dietary protein despite sufficient calorie intake (e.g. From carbohydrates)
* Marasmus is the diffuse loss of muscle and fat tissue (without edema or distended abdomen) due to a severe state of total calorie deficiency of all macronutrients
* Rickets - Vit D/ calcium deficiency
* Xerophthalmia, bitot spots - Vit A deficiency
* scurvy - Vit C deficiency
* Niacin (vit B3) deficiency - 4 Ds of pellagra - diarrhea, dermatitis, dementia, death
* vildagliptin - hepatotoxicity
* saxagliptin - avoid in patients with heart failure
* SGLT2 inhibitors can cause UTI

* sulfunylureas - teratogenic
* sulfunylureas are ineffective in Type 1 DM bcz at least 30% functioning beta cells are necessary
* chlorpropramide has disulfuram like action
* Biguanides - metformin
* DPP-4 inhibitors - gliptin
* SGLT2 inhibitors - glifozin
* GLP1 Receptor agonists - glutide
* sulfonyl ureas - stimulate insulin secretion from beta cells of pancreas
* thiozolidinedione - increase sensitivity of peripheral tissues to insulin
* PTU - hepatotoxicity
* Progestin only pill - increased risk of ectopic pregnancy
* Use of iodides during pregnancy can cause fetal goiter
* Potassium iodides contraindicated in pregnancy
*1st trimester - PTU
2nd/ 3rd trimester - carbimazole, methimazole
* Cabergoline preferred for hyper prolactinemia
* Dopamine agonists - bromocriptine, cabergoline - inhibit prolactin secretion
* Dopamine Antagonists - Chlorpromazine, haloperidol, metoclopramide - increase prolactin levels
* Gonadorelin - synthetic human GnRH
* CRH is used only for diagnosis of hypercorticiem to distinguish between Cushing disease and ectopic ACTH secretion
* octreoride - synthetic analogue of somatostatin
* Recombinant human GH - somatropin, somatrem
* Recombinant human IGF 1 - mecasermin
* Chromophobic RCC + oncocytic RCC - excellent prognosis
* papillary RCC + collecting duct carcinoma - poor prognosis
* IgA nephropathy - IgA complex deposition in mesangium
* membranous nephropathy - subepithelial deposits
* multi nodular goiter - iodine difficiency
* diffuse goiter - Graves disease (autoimmune)
* myxedema - non pitting edema of skin from hypOthyrpidism
* pretibial myxedema - Graves disease - hypERthyroidism
* effacement of foot processes - minimal change disease, FSGS
* spike and dome appearance - membranous nephropathy
* tram track appearance - MPGN
* subepithelial humps - PSGN
* crescents in bowman space - RPGN
* flea bitten kidney - RPGN
* most common nephrotic syndrome in children - minimal change disease
* associated with hodgkin lymphoma - minimal change disease
* associated with HIV, heroin use, sickle cell disease - FSGS
* associated with HBV, HCV, SLE, NSAIDS, penicillamine - membranous nephropathy

* associated with HBV, HCV - Type 1 membranoproliferative GN
* Dopamine increase GH levels in normal individuals but in patients with acromegaly, it acts paradoxically to reduce GH levels
* Incineration - temp over 850 degree C

Discharge in
* Bacterial vaginosis - gray/milky, fishy odor
* Trichomoniasis - frothy, yellow green, foul smelling
* Vaginal yeast infection - white, crumbly and thick (cottage cheese like), odorless
* Gonorrhea - purulent, creamy
* Chlamydia - purulent, bloody

Microscopic findings
* Bacterial vaginosis - clue cells
* Trichomoniasis - flagellated protozoa
* vaginal yeast infection - pseudohyphae
* Gonorrhea - gram negative intracellular diplococci
* Chlamydia - intracellular organisms that Gram stain poorly

Partner therapy is recommended in most cases of STDs, particularly chlamydia, trichomoniasis, and gonorrhea. Bacterial vaginosis and vaginal yeast infection do not require treatment of the partner(s).

Deposition of IgG not seen in
* minimal change disease
* RPGN Type 2
* FSGS

MEN 1
* parathyroid hyperplasia
* pancreatic tumor
* pituitary adenoma

MEN 2A
* pheochromocytoma
* medullary carcinoma of thyroid
* parathyroid tumors

MEN 2B

* pheochromocytoma
* medullary carcinoma of thyroid
* Ganglioneuromatosis

Casts
* granular, muddy casts - acute tubular necrosis
* fatty casts - nephrotic syndrome
* RBC casts - nephritic syndrome
* WBC casts - pyelonephritis
* waxy casts - chronic pyelonephritis

SDGs related to environment
* Goal 6 - clean water and sanitation
* Goal 7 - affordable and clean energy
* Goal 13 - climate action

Criteria air pollutants:
6 common air pollutants that harm our health and environment
* carbon monoxide
* lead
* ground level ozone
* particulate matter
* nitrogen dioxide
* sulfur dioxide

Reducing smog
* sulfur dioxide
* particulate

Photochemical smog
* ozone
* other oxidants

Triage: rapid classification of injured done on basis of severity of injury
Red - high priority patients
Yellow - medium priority
Green - ambulatory patients
Black - dead patients

Bromocriptine used in
* hyper prolactinemia
* acromegaly
* parkinsonism
* restless leg syndrome

Radioactive iodine
* contra indicated in pregnancy, children, nursing mothers
* permanently cures hyperthyroidism

Clomiphene citrate
* anti estrogen
* induce ovulation
* should not be used for more than 6 cycles bcz or risk of ovarian cancer

Sub epithelial deposits
* PSGN
* MGN

Mesangial deposits
* Berger's

Subendothelial deposits
* MPGN Type I
* wire loop/ SLE

Balanced diet food pyramid
* 60 - 75% carbohydrates
* 15 - 30% fats
* 10 - 15% proteins

EXPANSIVE PYRAMID
- growing
- rapid growth
- higher percentage of young people
- low life expectancy
- very high birth rate

STATIONARY PYRAMID
* stable

* slow population growth
* life expectancy increasing
* birth rate low

CONSTRICTIVE PYRAMID
* declining
* zero population growth
* high percentage of older people
* life expectancy high
* birth rate very low

FIVE MAIN KILLERS IN DISASTER
* ARIs
* Diarrhea
* measles
* malaria
* malnutrition

DIS INFECTION OF WATER
* Chlorine tablet (halazone) - 1 tablet for 1 liter of water
* Iodine tablet - 1 tablet for 1 liter of water

Waste hierarchy (4Rs)
* reduce
* re use
* recovery
* recycle

INERTIZATION
* 65% waste, 15% lime, 15% cement, 5% water
* minimise the risk of toxic substance migrating into surface water or ground water and to prevent scavenging

DISPOSAL OF PATHOLOGICAL WASTE
* body parts, research, animals
* cannot be disposed of by autoclaving
* Crematoria (burning of body) or burial should be performed

CHEMICAL TREATMENT
* sodium hypochloride (bleaching powder), chlorine dioxide, or paracetic acid
* decontamination of medical waste

STEAM AUTOCLAVING
* saturated steam at 134 C for 3 minutes, or
* 121 C for 15-20 min and
* increased pressure of 18-20 psi
* Inactivate and destroy microorganisms and spores
* cannot treat pathological waste, animal waste, chemotherapy waste, and low level radioactive waste

INCINERATION
* refuse can be disposed off hygienically by burning or incineration
* method of choice when suitable land is not available
* destruction of toxic substances
* temperature - 1500 to 2000 degree F
* emission of gaseous pollutants (dioxin, mercury) and contribute to air pollution
* PVC plastic major source of dioxin

HEMATURIA
* BPH
* UTI
* Urolithiasis
* Glomerulonephritis
* polycystic kidney disease
* malignancy (e.g. Bladder cancer, renal cell carcinoma)

Nontoxic goiter
* normal TSH, T3, T4
* Iodine deficiency

Toxic goiter
* increased T3, T4 production
* Graves disease, toxic multinodular goiter

Hypothyroid goiter
* decreased T3, T4 production
* Hashimoto disease, congenital Hypothyroid goiter

Emergency contraception
* levonorgestrel - within 72 hours
* mifepristone
* ulipristal - up to 5 days

Pharmacotherapy of BPH

ALPHA BLOCKERS
* zosin
* postural hypotension

5 alpha reductase inhibitors
* finasteride, dutasteride
* AE: Sexual dysfunction, gynecomastia

ANTI MUSCARINICS

PDE 5 Inhibitors
* Tadalafil
* treatment of erectile dysfunction
* adverse effects: priapism