



RASHIDA IQBAL FINANCIAL AID
ORGANIZATION

PATHOLOGY GUIDELINES

4TH YEAR MBBS

RIFAQ
RAWALPINDI MEDICAL UNIVERSITY

Note: These guidelines use Robbins Basic Pathology (Medium Robbins) 1st South Asia Edition as reference, unless mentioned otherwise. For other editions of Robbins Pathology, please correlate accordingly.

With each topic, its respective weightage in the Annual professional exam has been mentioned alongside. The starred topics are the topics you cannot afford to miss.

Oral Cavity and Gastrointestinal Tract:

9 MCQs and 2 SEQs in proff

- Aphthous ulcers
- Oral manifestations of systemic diseases ([Table 16.1 from Big Robbins 9th Edition](#))
- Oral squamous cell carcinoma: risk factors, morphology
- Pleomorphic adenoma
- Mucoepidermoid carcinoma
- Barrett Esophagus **
- Reflux Esophagitis esp. morphology
- Esophageal tumors: squamous cell CA and adenocarcinoma *
- GERD
- Gastritis (H pylori and autoimmune) **
- Table 15.2 **
- Peptic Ulcer Disease and its complications
- Gastric Polyps
- Adenocarcinoma of stomach: differences between diffuse and infiltrative type **
- Carcinoid tumors and syndrome
- Intussusception: sausage-shaped mass in the RUQ (*Annual Proff 2019*)
- Hirschsprung disease
- List of malabsorptive disorders, Table 15.3
- Celiac disease, morphology and pathogenesis **
- Inflammatory Bowel Disease, morphologies **
- Difference between UC and Crohn's Disease Table 15.5 **
- Colonic polyps **
- Neoplastic and Non-neoplastic polyps
- Colorectal cancer complete**
(etiology, protective factors, association with FAP, exophytic presentation, morphology)
- Pathogenic pathways of Colorectal cancer**
- Acute appendicitis*
- **NOTE: Watch SKETCHY as this is a high yield and important topic (the only topic with 2 SEQs)**

Hepatobiliary system

5 MCQs and 1 SEQ in proff

- Cirrhosis: causes, morphology **
- Hepatitis (A, B, C) ** esp. serological diagnosis
- Hepatitis B serology**
- Morphology of Acute and Chronic Hepatitis **
- Diagnostic antibodies for Autoimmune Hepatitis
- Alcoholic and Non-Alcoholic fatty liver disease **
- Steatohepatitis morphology **
- Metabolic liver diseases
- Autoimmune cholangiopathies PBC and PSC **
- Differences between PBC and PSC Table 16.5 **
- Hepatocellular carcinoma (esp risk factors are very important, small cell change, large cell change) AFP as an indicator of HCC
- Gall stones, types
- Chronic Cholecystitis morphology
- Acute pancreatitis (causes: alcohol and biliary obstruction & pathogenesis)
- Complications of acute and chronic pancreatitis
- Pancreatic cancer (Pathogenesis i.e. genes & clinical presentations) **

Blood Vessels and Heart

5 MCQs and 1 SEQ in proff

- Atherosclerosis ** (Complete topic: Pathogenesis. Risk factors, table 10.3, Morphology, consequences)
- Role of hyperlipidemia in atherosclerosis
- Classification aneurysms
- Clinical course, etiology and morphology of aneurysms
- Vasculitis ** (definition and classification, Fig 10.22)
- Mechanisms involved in non-infectious vasculitis
- Role of ANCA **
- Giant Cell arteritis ** (ESR, CRP both raised, *Annual prof MCQ 2019*)
- Polyarteritis Nodosa esp. morphology
- Wegener Granulomatosis (also called Granulomatosis with Polyangiitis)
- Hemangioma: classification and details
- Kaposi sarcoma (3 morphological stages: patch, plaque, nodule)
- Sequence of events in heart failure, [flow chart 12.2](#) from Big Robbins 9th ed
- Heart failure cells
- Morphological feature of Right sided heart failure
- Myocardial Infarction pathogenesis **
- Table 11.2 ** (can also do Table 8.1 from Pathoma)
- Complications of MI
- Cardiac biomarkers and detection time ** graph 11.13

- Cor-pulmonale
- Causes of sudden cardiac death
- Rheumatic Valvular disease *** (criteria, pathogenesis, morphology, lab diagnosis and complications)
- Infective endocarditis **
- Libman-Sacks endocarditis
- Cardiac tumors (names, Myxoma)

Central Nervous System

2 MCQs and 1 SEQ in proff

Note: There is no need to do full chapter, usually question is from the topic of CNS Tumors. Just do the following topics.

- Meningitis** Morphology of Bacterial Meningitis (*Annual Proff 2017*)
- Table 23.2**
- Brain Abscess morphology (*Annual Proff 2019*)
- Alzheimer disease
- Parkinson disease
- Ischemia and Infarct
- Multiple sclerosis (Pathoma)
- Classification of CNS tumors**
- Gliomas** (Types of glial tumors, Grading and morphology of each grade)
- Medulloblastoma** drop metastasis (*repeated UHS MCQ*)
- Meningiomas**: grading and morphological variants
- **NOTE: SKETCHY** videos are good for this topic

Musculoskeletal System

5 MCQs and 1 SEQ in proff

- Achondroplasia
- Osteogenesis Imperfecta
- Paget Disease of bone**
- Mechanism of fracture repair (*SEQ Annual Proff 2019*)
- Osteomyelitis** (Acute and Chronic)
- Classification Of Bone tumors **
- Osteoma (*MCQ Annual Proff 2017*)
- Osteoid osteoma
- Osteosarcoma** (do remember the percentage of occurrence like 60% in knee, four histological subtypes)
- Chondrosarcoma
- Ewing sarcoma**
- Giant Cell Tumor**
- Paget disease Morphology
- Osteoarthritis (Pathoma)

- Rheumatoid arthritis**
- Comparison of Osteoarthritis and Rheumatoid Arthritis (*Annual Proff 2019*)
- Gout ** (pathogenesis, role of HGPRT)
- Classification Of soft tissue tumors **
- Lipoma and liposarcoma (For MCQs)
- Rhabdomyosarcoma (variants)
- Leiomyosarcoma

Male Genital Tract

5 MCQs and 1 SEQ in proff

- Testicular tumors are the most important topic. Must know morphologies and tumor markers of all tumors. Also give a general look to their histopathological diagrams. An SEQ was asked in Annual Proff 2019.
- Classification of testicular tumors **
- Table 18.1
- Seminoma **
- Embryonal Carcinoma **
- Yolk sac tumor **
- Choriocarcinoma
- Teratoma
- Benign Prostatic Hyperplasia (pathogenesis, morphology) **
- Prostatic Carcinoma (morphology, Gleason staging system, diagnosis) **
- PSA levels and their clinical significance

Female Genital Tract

5 MCQs and 1 SEQ in proff

- Neoplasia of cervix ** (pathology, HPV association, grading, types, morphology)
- Endometriosis** (4 hypotheses and morphology)
- Endometrial hyperplasia, morphological patterns (*Annual proff 2019*)
- Grading of endometrial cancer**
- 2 types of endometrial carcinoma (endometrioid and serous)
- Leiomyoma** (morphology, diagnostic features)
- Polycystic ovarian disease
- Tumors of ovary classification** Also do the details of serous, mucinous, Brenner, teratoma, granulosa cell tumor,
- Mucinous tumors metastasis (Krukenberg tumor, pseudomyxoma peritonei)
- Table 19.4**
- Gestational trophoblastic disease**
- Table 19.5**
- Eclampsia (*Annual Proff 2017*)
- **NOTE: SKETCHY videos are REALLY good for this topic**

Breast

5 MCQs and 1 SEQ in proff

Do breast from big robbins get the chapter photocopied from there. Plus, must do Ahmad Bhai notes of it. Try not to skip anything from this chapter. The links to the Breast chapter in Big Robbins and the notes are as follows:

Breast Chapter Big Robbins:

https://drive.google.com/open?id=1_oStr7aWf6rN-ZaHqCIMsPtLKFKZSNF

Link to Ahmed Hassan bhai's notes:

<https://drive.google.com/open?id=1R6dJGHmr1tlyPEiBq29rThvkIrM5N0Mf>

- Fibrocystic change of the Breast: 3 principal morphological changes **
- Sclerosing adenosis
- Pathogenesis of breast cancers, genes involved** (*Annual proff 2019*)
- Role of BRCA-1, BRCA-2
- ER, PR, HER-2/neu **
- Triple Negative cancers
- Fig 23.16 (good for concept building)
- Classification of Breast cancers**
- DCIS morphology**
- Paget disease of nipple
- Major and Minor Prognostic factors**
- Morphology of Breast Carcinomas esp. ductal, lobular
- Morphology of Medullary carcinoma** (*Annual proff 2019*)
- Triple assessment for CA breast: clinical, radiological, histological (*test question*)
- Fibroadenoma**
- Phyllodes tumor
- **NOTE: SKETCHY videos are REALLY good for this topic**

Hematology

5 MCQs and 1 SEQ in proff

- Classification of anemia
- Hereditary spherocytosis defective proteins
- Sickle cell disease **
- Thalassemia **
- Table 12.3 and Fig 12.5
- Fe deficiency anemia ** (esp. lab diagnosis, blood smear)
- Megaloblastic anemia **

- Aplastic anemia causes, BM morphology (hypoplastic BM with fatty replacement)
- Infectious mononucleosis
- WHO classification of lymphoid neoplasm Table 12.7 (only do the headings in bold. No need to memorize the whole table)
- ALL, CLL
- For all leukemias, do not skip lab diagnosis, morphologies and genetic mutations
- Burkitt lymphoma** (immunophenotype, pathogenesis, morphology)
- Multiple myeloma
- Hodgkin lymphoma **
- Staging, morphological types of Hodgkin lymphoma
- Difference between Hodgkin and non-Hodgkin lymphoma (*Annual proff 2017*)
- Hairy cell leukemia imp (positive for TRAP, dry tap on bone marrow)
- AML**
- CML** (splenomegaly is the distinctive feature)
- DIC (do fig 12.30)
- HUS and TTP
- Causes of thrombocytopenia table 12.13
- **NOTE: Very complicated topic. SKETCHY videos are REALLY GOOD for it**

Endocrine System

5 MCQs and 1 SEQ in proff

- Prolactinoma
- Thyroid Is Very Important. **
- Interpretation of Thyroid function tests **
- Graves' Disease ** (morphology, pathogenesis, look for Graves ophthalmopathy as diagnostic clue)
- Thyroiditis (Hashimoto's, de Quervain, Riedel) **
- Hashimoto's thyroiditis pathogenesis (both Type II & IV Hypersensitivity) **
- Papillary carcinoma morphology **
- Difference between follicular carcinoma and adenoma
- Medullary carcinoma of the thyroid
- Causes Of hypercalcemia table 20.4
- Interpretation of PTH and Ca levels in parathyroid disorders ** (MCQs)
- Diagnostic criteria for Diabetes pg. 772 **
- AGES formation and pathogenesis of complications of DM **
- Diabetic nephropathy: <https://imgur.com/t4jQJox>
- DKA. Proff ques
- Fig 20.34, various forms of Cushing syndrome
- Diagnosis of Cushing's disease ** <https://imgur.com/KUhR2g6>
- Addison Disease: brief idea and lab diagnosis
- Pheochromocytoma **
- MEN1 and MEN2 syndromes

Respiration

5 MCQs and 1 SEQ in proff

- ARDS. Pathogenesis. Fig 13.2
- Types/patterns of emphysema
- Pathogenesis of emphysema ** Fig 13.6
- Morphology Of emphysema ** *Proff ques.*
- Chronic Bronchitis ** morphology and pathogenesis
- Reid Index **
- Asthma ** morphology and pathogenesis
- Bronchiectasis
- Fig 13.13 IPF pathogenesis
- Silicosis morphology “egg-shell calcifications” (*MCQ Annual proff*)
- Asbestosis pathogenesis
- Asbestosis morphology **
- Sarcoidosis morphology: asteroid bodies
- Table 13.5 Pneumonia syndromes
- Morphology pneumonia ** (*Proff ques*)
- Lung abscess
- TB (do only Fig 13.33 for pathogenesis and fig 13.38 for spectrum of disease)
- Difference between Ghon complex and focus
- Lung tumor classification **
- Asbestos increases 55 times risk for CA (*Proff MCQ*)
- Morphology of lung cancers **
- Table 13.7 comparison of Small Cell and Non-Small Cell
- Carcinoid tumor
- Malignant Mesothelioma **
- Do give a read to Table 9.5 from Pathoma for a summarized review of lung cancers**

Renal and Lower Urinary Tract Pathology

5 MCQs and 1 SEQ in proff

- Nephrotic syndrome vs Nephritic syndrome **
- For all types of glomerulonephritis, remember their LM, EM morphologies and immunofluorescence pattern. Table 14.2 can be used as a review. Do details of the following topics:
- Minimal change disease **
- Membranous nephropathy
- Membranoproliferative glomerulonephritis
- Poststreptococcal glomerulonephritis** (morphology, pathogenesis, etiology)
- IgA nephropathy
- Rapidly progressive glomerulonephritis **
- Acute pyelonephritis
- Chronic Pyelonephritis (esp. morphology)
- Acute tubular necrosis (causes, 2 forms, morphology)
- Diabetic nephropathy **

- Chronic kidney disease morphology
- Polycystic kidney disease
- Types of renal stones **
- Hydronephrosis causes
- Classification of renal tumors
- Renal cell carcinoma (morphology, staging, types) **
- Transition cell carcinoma (morphology, grading, risk factors)
- Cystitis (causes, clinical features)
- Bladder cancer: ** types, pathogenesis, staging, BCG injection for Tx)

Skin Pathology

Only 1 MCQ comes from this chapter in proff. Read only Pathoma for this topic. Important topics include:

- Squamous cell carcinoma
- Rodent ulcer/basal cell carcinoma
- Malignant melanoma
- Nevus

Clinical Chemistry

3 MCQs and 1 SEQ in proff

There is no need to do anything additional for this topic. Mostly the questions are about lab markers and functional tests, all of which gets covered while reading the book. Here is a pdf summary of all you need to know.

https://drive.google.com/file/d/1aLLTMWGAVivsfShiFvS147z_iR6rGyn8/view?usp=drivesdk

Mnemonics by Ahmad Hassan Bhai:

https://www.facebook.com/ahmad.hassan.7161/media_set?set=a.10203863073817658&type=3&rdc=1&_rdr

Flash points by Dr. Ejaz Waris for MCQs:

<https://drive.google.com/file/d/1qQg29ocZLWleMGtoT9LK6nnYWHMV6Lnw/view>

WBC Pathology Notes:

https://drive.google.com/open?id=1i8oNeQsswK_FbHEutyu69fiyKFmEWOxH

Pathology Past Papers:

https://drive.google.com/drive/u/1/folders/15JU9ngVJRjZH6Wr_pkCC_-1mUWmJjx56

UHS Past Papers:

<https://drive.google.com/drive/u/1/folders/1n1aUzC2BYcWgUVKtLWXa8qY8s2alrRlh>

Morphologies:

https://drive.google.com/open?id=1Ydcv_i17YSWX6f2FlviTwP_HxcajWpuC

BEST OF LUCK FOR YOUR PROFF :)

Remember Team RIFAO in your prayers.

Prepared by

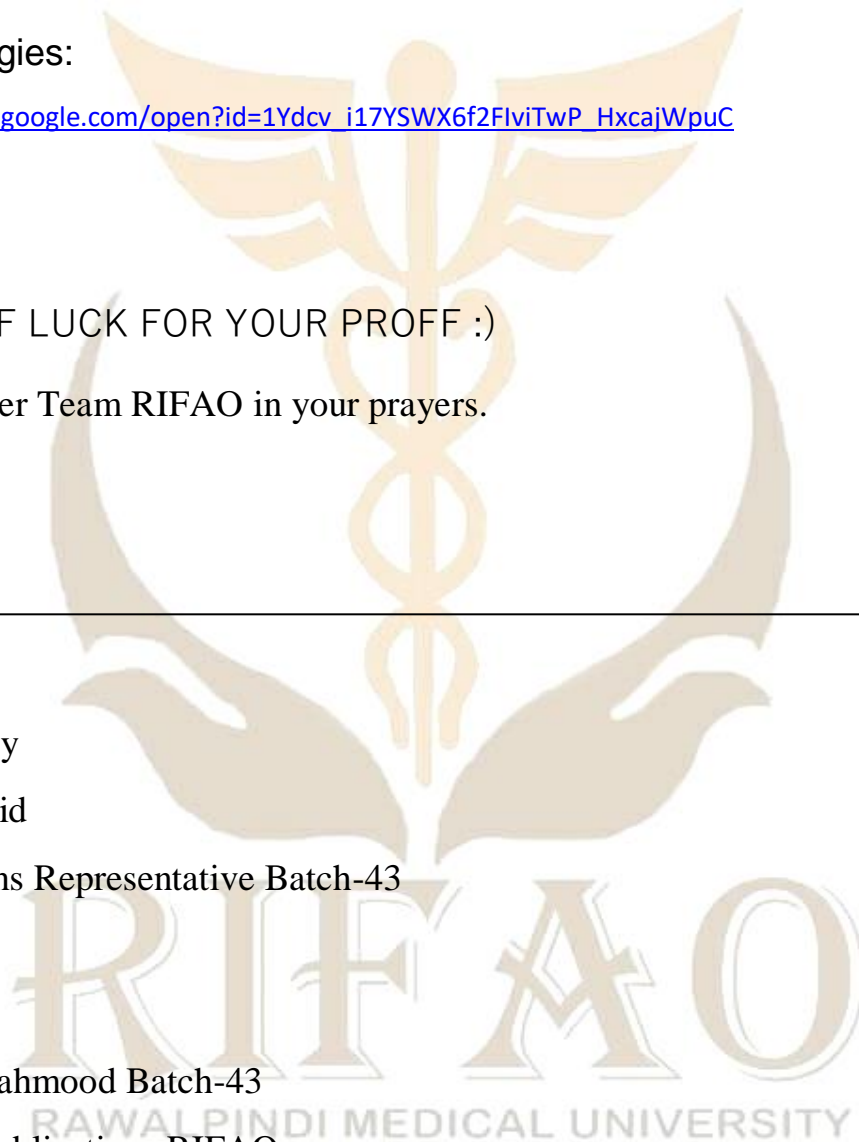
Noor Khalid

Publications Representative Batch-43

Edited by

Maham Mahmood Batch-43

Director Publications RIFAO



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