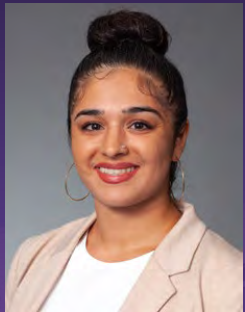


Comparison of Pathology Organ System Topics Covered in a Robbins Pathology-Based Undergraduate Medical Education Curriculum with First Aid for the USMLE Step 1



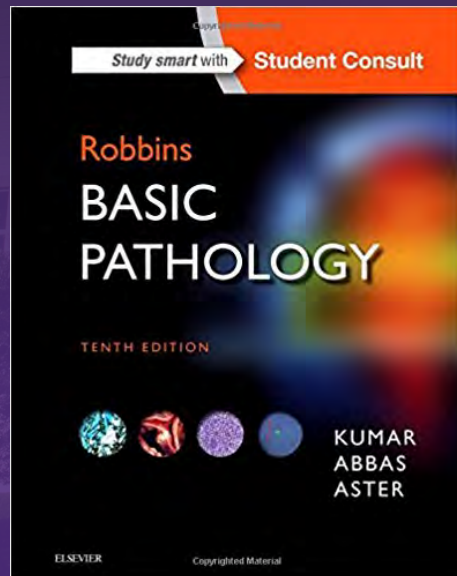
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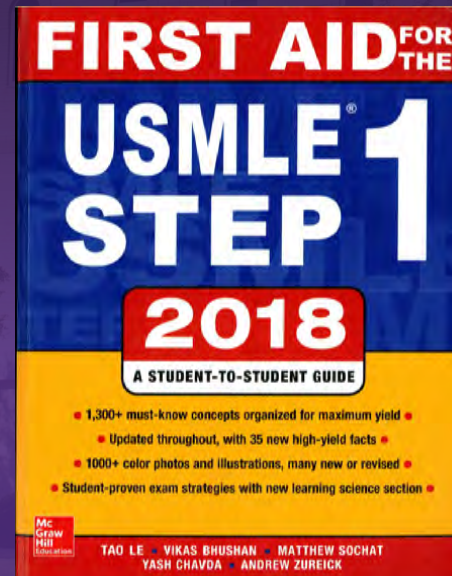
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- The National Board of Medical Examiners (NBME) offers relatively truncated, topic-level rather than granular guidance about the content covered on the NBME Step 1 examination, combined in a single “Content Outline” with Step 2 and Step 3 topics, and provides no recommendations regarding optimal text or online resources (<https://www.usmle.org/pdfs/usmlecontentoutline.pdf>).
- Hence, students, basic science course directors, authors of textbooks, and developers of study resources have relatively little guidance from NBME regarding topics to cover and emphasize.
- The key, definitive pathology resource has shifted from a single, universally-used textbook, either **Robbins Basic Pathology** (condensed) or Robbins and Cotran Pathologic Basis of Disease (greater detail) (<https://www.elsevier.com/books>) to a combination of two relatively new resources, the pathology content in **First Aid for the USMLE Step 1** (firstaidteam.com) and Pathoma (pathoma.com, online video and accompanying manual).
- Student confusion and frustration results when differences in content are encountered among course materials and extracurricular reference / resources

- Pathology topics presented in the Brody School of Medicine (BSOM) second-year (M2) organ system-based component of the medical student curriculum, based largely on the [Robbins Basic Pathology, 10th Edition, 2018](#), were compared to content including text, tables, and figures presented in in [First Aid for the USMLE Step 1, 2018](#) and discrepancies were summarized.
- In addition, Google.com and PubMed.gov literature searches were conducted using key words including First Aid for Step 1 and pathology.



(Image: Amazon.com)



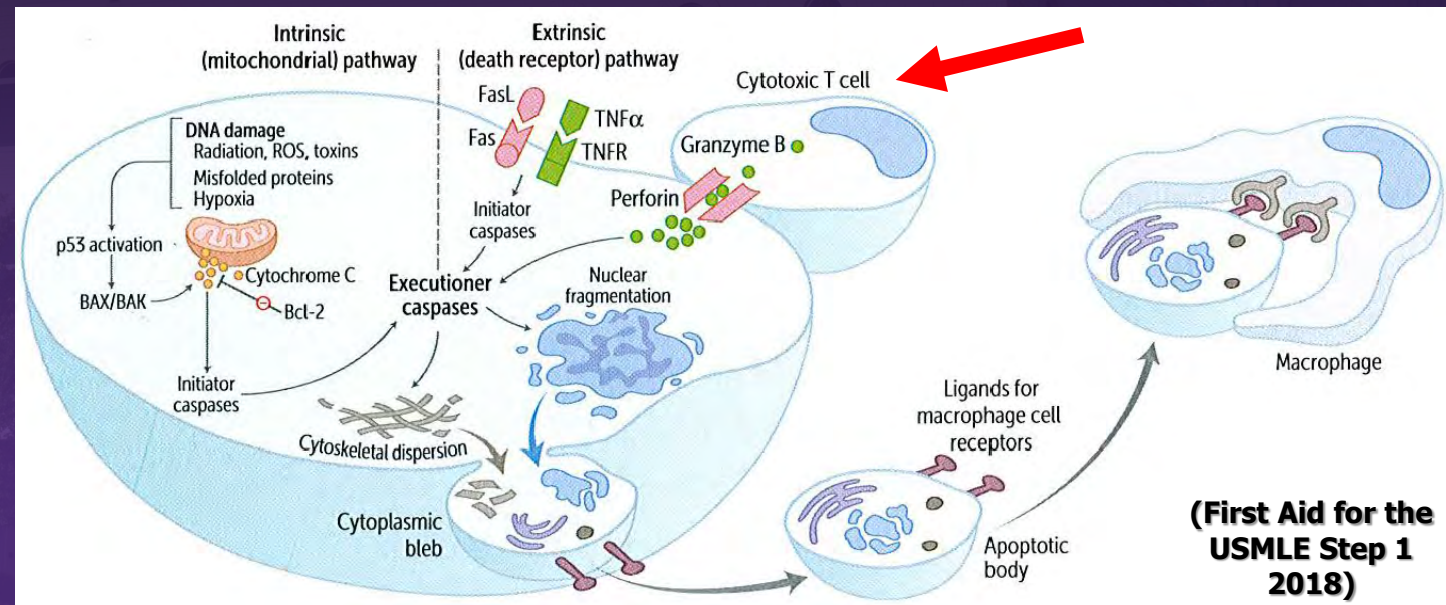
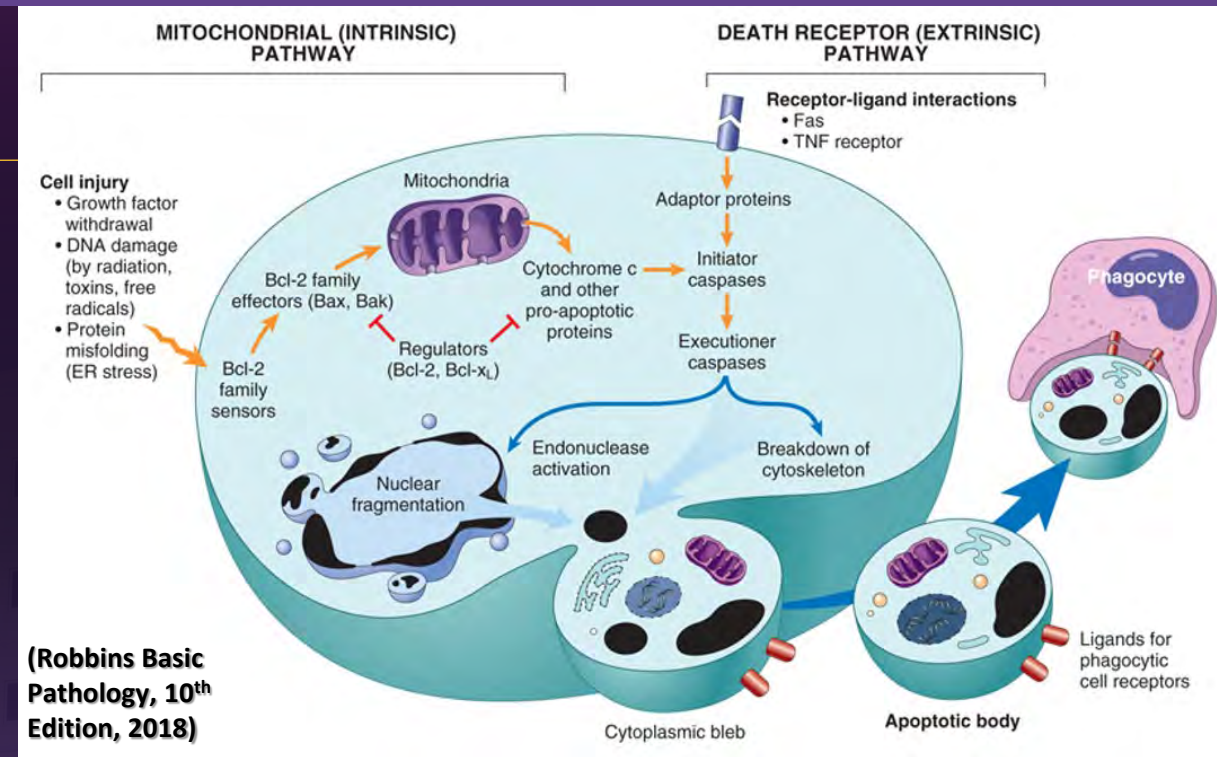
(Image: Amazon.com)

Results

- Coverage of pathology content in **First Aid (792 pages)** including index) was, by design, synoptic and organized in bullet-point fashion while coverage in **Robbins (935 pages)**, including index), the gold-standard medical school curriculum pathology textbook, was considerably more detailed and structured in sentences.
- In our comparison of topics covered in the BSOM Pathology Course, while there was generally good concordance of pathology content covered between **First Aid for Step 1, 2018** and **Robbins Basic Pathology, 2018**, over 50 discrepancies were identified, including both minor details, topics covered in Robbins that were not covered in First Aid, and occasional topics covered in First Aid and not in Robbins.

Organ System	Topic	First Aid - 2018	Robbins Basic Pathology - 2018
Respiratory	Nonspecific Interstitial Pneumonia & Cryptogenic Organizing Pneumonia	Idiopathic Pulmonary Fibrosis covered but Usual Interstitial Pneumonitis not mentioned	Usual Interstitial Pneumonitis (UIP) is the pathologic description of the clinical term Idiopathic Pulmonary Fibrosis; both terms covered
Cardiovascular	Arrhythmogenic Right Ventricular Cardiomyopathy	Not Covered	Covered in cardiomyopathy section with gross and microscopic image; important cause of sudden death
Respiratory	Nonspecific Interstitial Pneumonia & Cryptogenic Organizing Pneumonia	Not Covered	Covered as restrictive lung diseases
Gastrointestinal	Abetalipoproteinemia	Not covered	Covered as malabsorptive disease; associated with acanthocytic (spur cell) red blood cell morphology
Gastrointestinal	Microscopic Colitis	Not covered	Covered as malabsorptive disease; associated with acanthocytic (spur cell) red blood cell morphology
Nervous System	Neuromyelitis Optica	Not covered	Covered as demyelinating disease
Immune System	Hyper-IgE / Job Syndrome	Covered in table: Hyper-IgE (Job) Syndrome	Not covered
Male Reproductive	Bowen Disease = Squamous Cell Carcinoma in Situ: Shaft of Penis	Appearance of Lesion Described as Leukoplakia	Color / appearance of lesion not described: histology described and shown in photomicrographs
Male Reproductive	Erythroplasia of Queyrat = Squamous Cell Carcinoma in Situ: Glans of Penis	Appearance of Lesion Described as Erythroplakia	Not covered

- Some figures in First Aid for Step I appear to be direct renditions of figures from Robbins.
 - In some cases, additions to the First Aid figures included additional information: e.g. in the apoptosis figure, the addition of the cytotoxic T-cell mechanism of induction of apoptosis by perforin and granzyme B is helpful and instructive.
- A literature search identified no published, systematic comparison of First Aid and Robbins.
- A student Doctor Network (forums.studentdoctor.net) post refers to discrepancies between the Robbins textbooks and First Aid, mostly highlighting some of the “lower yield” details missing in First Aid.



- There was a **remarkably good concordance** of topics covered in the pathology course and then the Robbins textbooks and in First Aid.
- Most discrepancies related to lack of coverage of specific topics in the more succinct, “high-yield” First Aid that were covered in Robbins or coverage in First Aid in the absence of coverage in Robbins.
- We conclude that students can feel **confident** of the agreement of Robbins and First Aid, the essential, gold standard Step 1 study guide.
- However, students should recognize that, while First Aid is **necessary and essential** for Step 1 preparation, it is **not intended to be and cannot be a complete and comprehensive, single resource** for all content testable on Step 1.
- This study focused on topics taught in the BSOM M2 course. A more detailed, one-to-one comparison of Robbins and First Aid is warranted.
- Comparison of Pathoma and Robbins coverage of topics is ongoing.

