

# Microscopic Descriptive Techniques – Dr. Jey Koehler

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The scope and nature of our role as pathologists is going through an interesting period of change, with a shift toward integration of sophisticated techniques like morphometric analysis and molecular methodology with more traditional ones. Nevertheless, descriptions of formalin-fixed, paraffin-embedded, hematoxylin and eosin-stained slides remain the bread and butter of the anatomic pathologist, a situation that is unlikely to change anytime soon. The microscopic portion of the certifying examination tends to cause many candidates a great deal of anxiety. This is understandable given the impressive breadth of diseases and species represented as well as the fact that (at least for now) you are required to interpret changes in the absence of any salient history or helpful ancillary data. This course can't fill every gap you may have in your pathology knowledge (and we ALL have gaps), but you will probably learn some pathology while you are here. What this course is really about is *style*. Collectively, the instructors in this course have graded many thousands of descriptions; we hope to be able to offer you the benefit of our experience to help you avoid some mistakes people commonly make, explain why they are detrimental, help you correct them, and let you practice these techniques in a low-stakes situation before you take the certifying exam. Lastly, we hope that you will not view this course as merely a "board exam boot camp", though it certainly can help you prepare. Good descriptions are good descriptions whether they are for the purpose of diagnostic pathology, animal model pathology, toxicologic pathology, manuscripts for publication, etc., and the tips you pick up here will be useful regardless of your audience.

## THREE CARDINAL RULES OF SUCCESS FOR WRITING GOOD DESCRIPTIONS

### 1) Put the most important thing first

This rule seems obvious and self-explanatory, but it is too frequently ignored! In your descriptions it's important to remember to put the most important change first. Whether your reader is a test grader, a clinician, or a PI, don't make them wade through a sea of unimportant detail before getting to the good stuff. Although it's wise to get into the habit of EXAMINING the tissue in a specific order each time (ex: meninges-grey matter-white matter, vessels), that doesn't mean you should always DESCRIBE it in that order. This is a mistake people often make early in their training, one that can persist if left unaddressed, and one that can rear its ugly head in the highly stressful environment of a timed test. No matter who they are, the person reading your description is busy. Graders have many, many tests to grade, so give them a clear picture of what you think is important very early in your description. Likewise, clinicians are busy and unfamiliar with much of the terminology you use, so don't make them hunt through a sea of irrelevant minutiae to get the goodies. Remember that a good portrait artist is capable of conveying the image of a face with a few well-placed lines, and not every image needs to be a photo-realistic reproduction to get the point across.

### 2) Don't waste words

This can run the gamut from over-description of specimens to overuse of filler phrases like "characterized by" and "within the parenchyma" when less wordy and more direct options will do. Repetition of already-described elements (lymphocytes, plasma cells, and fewer macrophages is a common culprit) over and over will also waste words and exhaust your reader; remember, words cost both of you something precious: TIME. Don't say in twenty words what you can say in ten. Though it may seem paradoxical, words can also be "wasted" by leaving them out as well. What I mean by this is that the use of highly specialized terms or specific anatomical localization can be exquisitely important in certain organs like eye, brain, and reproductive tissue and species like reptiles, amphibians, and birds. Omitting them ultimately costs you and your reader by reducing clarity, and you are likely to lose precious points that are often given to reward those who are well-versed in these sub-specialty languages.

### 3) Avoid some common mistakes

I'm happy to say that starting in 2017, nobody will need to worry about their handwriting. Test-takers and graders alike can rejoice at this long-overdue modernization. HOWEVER...the ease of typing, cut-and-paste, and delete may encourage some people to put in far more information than they would have in a written description. Remember, graders still have to read your description and find the points. The more unnecessary words you include, the more difficult this task becomes.

Like it or not, things like proper spelling, grammar, and punctuation convey to the reader that you are in general a well-educated person with proficiency in written communication, while misspelled words, grammatical errors, and punctuation problems leave a poor overall impression even when the description and diagnosis are technically correct. If English is not your first language, don't worry—that is often fairly obvious to the graders early on and there will be extra leniency in terms of phrasing, spelling, etc. It's impressive to speak more than one language but doubly so to be able to use the highly specialized technical language of pathology in multiple tongues!

### 4) Don't run out of time

During the exam, time is limited and tension is high. Although the format is currently in flux, it is unlikely that the time allotment per slide will change significantly. For that reason, it is wise to plan on 12 minutes per slide. An exercise that will improve your descriptions as well as your pathology knowledge is to describe 4 slides in a row first thing when you arrive at your office every morning for the six months leading up to the exam. Old Wednesday Slide Conference or regional slide conference sets are great for this and usually present in abundance in most institutions. This will reinforce the 12-minute interval, ensure exposure to a wide variety of diseases, and help you to overcome any apprehension about approaching a complete "unknown". When the test moves to the computerized testing centers, timers may no longer be necessary but might still help some folks stay on track. If you choose to bring a timer to the exam, know that you must have one that blinks instead of beeps, as sound-making devices are not allowed out of consideration for the people around you.

Many of you have all, or nearly all, you need to write passing descriptions. You have already done the majority of the heavy lifting. Our goal is to help you polish what you have. Please know that any written comments we make to you on your mock exams are never meant to belittle or discourage you—quite the opposite. Everyone who teaches at these courses is a volunteer who gives tremendously of their time because they are deeply committed to teaching and to your success. If you tank a description here, don't get angry at yourself or us. Be thankful for the opportunity to identify a hole in your knowledge or time management skills now rather than during a very expensive and high-stakes exam, and laugh at it over a beer or two with your future colleagues. We look forward to seeing your name among the list of new Diplomates this year or beyond.