



Triage, Stabilization and Endpoints of Resuscitation Part 1

DRIP 2

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Veterinary Triage Systems

- VetCOT trauma score
 - Based on 4 variables
 - Blood Lactate
 - Ionized calcium
 - Presence of spinal trauma
 - Presence of head trauma
 - % Mortality risk is calculated



The last one that I wanted to talk about is a new system. This was just published last year. Basically, it's called the VetCOT trauma score. They looked at a number of variables. So they looked at way more than four variables.

I don't remember the exact number, but it was a very large number. And then when they sort of distilled things down, they found that they actually could identify a pretty good correlation with mortality by just using four of those variables. Those variables ended up being blood lactate and ionized calcium, both taken within six hours of admission, the presence or absence of spinal trauma, and then the presence or absence of head trauma.

Veterinary Triage Systems

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- %



When they took all of these, they plug it into this algorithm, which really is like this higher math algorithm. This is pretty much what it looks like. And after doing all of that, then you basically end up getting a percentage mortality risk, meaning that you plug in all these numbers and it says, this patient has a 68% chance of mortality, something like that.

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This was all for dogs only, so this has not been validated for cats. And it was all dogs that had been presented within 24 hours of the initial trauma.

Similar to other studies, they found that high lactates, low calcium, and then the presence of both spinal or head trauma were all predictors of non-survival, which makes sense, certainly, with all of the other studies that are out there. Importantly, this has not been externally validated. So we don't really know if this would be useful if you took it to another population of pets. But again, it's sort of a good place to start, and especially given that this one actually would be relatively easy to use clinically, aside from the actual math portion of it. But I can imagine setting up a system on the computer where you have the algorithm, and all you have to do is plug in the numbers and then it spits out basically a mortality risk.

Again, I would never use any of these things to say like you shouldn't go forward because we calculated a 70% mortality risk, but I think that it's just important to have that information to talk about prognosis, and then also to know where we need to actually expend our resources. So if you have five patients that are coming in to the clinic all at the same time and one of them has a mortality risk of 5% and the other ones are 50% or more, you're going to want to put the resources towards the ones that are more critically ill, essentially. It also obviously doesn't stratify them into different categories. So you would need to sort of determine what you would do with that information.

Triage Classification	Description	Example
First Priority	Patient Critical Treatment must be initiated within seconds to minutes – Bring immediately to treatment room	Major bleeding, Breathing problems, altered mentation, shock, history of toxin ingestion, etc.
Second Priority	Patient Urgent Currently stable, but may become first priority patient, need to be reassessed, or have treatment initiated, within minutes to hours	History of major trauma, history of unsuccessful urination, repeated vomiting or diarrhea, etc
Third Priority	Patient Stable Pressing problem that is non critical Treatment initiated within hours	Fever, lacerations, vomiting, diarrhea, etc.
Fourth Priority	Patient Completely Stable Needs evaluation, but not urgently	Skin/coat/ear/anal gland complaints, etc.



This is a more sort of traditional triage system, where you are-- this is sort of an intuitive system, essentially, where you're going to classify them into first, second, third, or fourth priority. Examples of first priority would be patients that require treatment within seconds to minutes. Basically, you're going to want to bring these directly back to the treatment room, wherever you're performing stabilization on patients. This would be things like major bleeding, they're having dyspnea, seizures, like actively seizing, I should say, evidence of shock, or if they maybe even just ate something, but that something needs to be removed quickly. So if you need to induce emesis very quickly, then that could be considered a first priority patient, as well.

A second priority patient would be an urgent patient, minutes to like maybe an hour. This would be something major trauma, but not in shock. So maybe they have a broken leg, but they're not in shock. Maybe a blocked cat, again, that doesn't have any evidence of shock or bradycardia or on the way to that, or maybe just repeated vomiting and diarrhea. Stable patients, non-critical, just vomiting or diarrhea one time. And then the fourth priority, these are ones that technically need to be evaluated, but really they're not urgent. These are skin problems, ear problems, anal gland problems, all of the things that anybody who's worked in the ER kind of knows that these are the ones that clients think are absolutely first priority complaints, and have no idea why they actually have to wait to be seen, even though everything else that's coming through the door is laterally recumbent.

Poll #1

- Do you have a specific system in place for dealing with triages?
 - YES
 - NO



So for those of you that are out clinically, just wanted to kind of see, do you guys have any kind of system in place for triages, or is it kind of willy nilly, people just kind of run out there and do their thing?