

Wyeth v. Levine, 555 U.S. 555 (2009)

The chances that the Phenergan was infused into an artery - SLIM TO NONE!

The long and the short of this story is that 'bad' venipuncture occurred!

The PA chose to use an **IV-push** method through an already established indwelling IV line to administer the Phenergan.

The consequence of that procedure resulted in gangrene of the tissue (distal to the IV site) and amputation of the hand, initially, and then the forearm.

What the heck happened?

The lawsuit claims that the needle was inserted inadvertently/accidentally into an artery and the Phenergan was infused into the arterial system – disseminating tissue noxious Phenergan directly into tissue.

What the heck really happened!?!

FIRST – What image does the term 'IV-Push' conjure up in your mind when you hear those words? *A forceful and rapid depressing of the syringe plunger with a rapid and forceful infusion of biological (medicine)?* **[I have purposefully placed those words in the order in which they were written.]**

SECOND – Which artery did the PA access? What was the size of that artery? What was the lumen size of that artery? **What size (gauge) needle was used for that infusion?**

THIRD – What are the chances that an artery was truly accessed? [Medical personnel can't even accidentally hit (access) a vein 50% of the time, much less an artery. Superficial Veins in the hand (which are the veins that anyone/everyone is supposed to access) are VERY Superficial/Surface Sitting/ beneath the Skin/in the Subcutaneous tissue. Arteries are ALWAYS deep(er) in the tissue and definitely deep compared to Superficial Veins.

FOURTH – the vein is a very distensible structure – designed by nature to be that way / a very thin wall / distensible / and, in the hand, probably missing the middle layer of smooth muscle - a structure that is easily over distended, sometimes to the point of rupture. And when a needle is inserted into an over distended vein – rupture can occur. And if rupture does NOT occur, leakage (INFILTRATION) does.

And that doesn't even begin to describe the venipuncture problems in their totality.

But let's give each statement up there just a minute or two.

FIRST

'IV PUSH' *translates* (in most minds, if you do the study) into a forceful and rapid depressing of the syringe plunger, resulting in a rapid and forceful infusion of biological (whether fluids or meds) – as if that would send that Phenergan into the system IMMEDIATELY, rapidly to its destination – where ever that is that controls nausea.

When what really happens to the venous system is:

Imagine a static water filled (not over distended) long skinny water balloon, and someone comes along, inserts a needle (and the balloon doesn't rupture) and then rapidly and forcefully infuses a huge bolus of water. What happens to that initial segment of balloon? IT DISTENDS, over distends, begins to leak (Starling's disEquilibrium, as it were). INFILTRATION.

[If the water balloon ruptures with the 'push' infusion, now you have FRANK INFILTRATION with vein and tissue damage. And this will be described in another story – because it is the consequence of that low (15-30°) needle angle of entry.]

IV 'anything' should be SLOW, SLOW, SLOW – **equal to the speed** that the blood is traveling in that vein – so to speak. And, if you want to improve movement/circulation of the fluids/med and the blood – employ GRAVITY in your method. [VAT has that scientific story as well.]

SECOND

Which artery did the PA access? What was the size of that artery? What was the lumen size of that artery? **What size (gauge) needle was used for that infusion?**

You all don't know it....unless you have dissected the human cadaver and paid attention to that detail....but the lumen of the artery is, about, 1/3 the lumen of the vein. Oh, that's right, you don't even know what size the lumen of the vein is...you haven't seen that either....because nobody brought that information to your attention either.

You need to KNOW what size the vein is (or the artery for that matter) and THEN you determine what size needle should sit in that lumen. I guarantee you the artery in the hand does not have a lumen large enough to accommodate an IV needle insertion/placement. NO WAY!

THAT'S THE QUESTION WYETH SHOULD HAVE ASKED – WHAT SIZE WAS THE SUPPOSED ARTERY AND WHAT SIZE (GAUGE) WAS THE ACTUAL IV NEEDLE.

THIRD

And the chances of the PA 'accidentally' accessing an artery – slim to none (as healthcare workers can only 'accidentally' access a vein 50% of the time).

And that still can't be true because the PA accessed an already (supposedly) established venipuncture (VEIN) line.

1. So, the PA only accessed what Nursing had already established.....
2. ...was that already established line in a VEIN....*probably, or problems would have presented before the Phenergan infusion.*
3. Was the 'already established venipuncture IV line' a 'good' site or was it already compromised from the get-go?

FOURTH

Hand veins, anatomically speaking, should never be accessed. The most distal superficial veins are missing the middle layer of smooth muscle. And the wall is soooo..thin already – that leakage is a real problem. Distal wrist veins are also not anatomically sound for a venipuncture. [The closer veins (all veins) get to the heart, the thicker the wall of the vein. You want a thick vein wall that will tolerate a stick and the procedure.]

How convoluted is all of this???????

But back to the Wyeth v. Levine story –

The tragedy in all of this, besides her horrible experience and medical outcome, is that for 27 years I have been trying to tell the Nursing, Radiology, and Laboratory Medicine worlds about this advancement in venipuncture – ADVANCEMENTS THAT WOULD AVOID THE INFILTRATIONS, AMPUTATIONS, AND ALL OF THE OTHER CCIFs.

Please check out the www.STEM21cVA.com website for the science of it and the visit the www.VATmethod.com website to schedule your training (your re-training).