



Uniferon Best Practice Recommendation

Every drop counts

Counting minutes, sometimes even seconds, in pig production makes a lot of sense in terms of keeping operation as lean as possible. However, sometimes precious drops of iron may be wasted in the fast-paced environment. In fact, poor injection technique may result in significant amounts of iron not getting into the pig and work counterproductive to optimization efforts implemented.

What is a drop of iron?

One of the most important factors to successful anaemia care is correct injection technique. If not carefully attended to, there is a risk that iron may be dosed incorrectly or that effective entry of iron medication via tissue will be compromised. In both cases you will likely experience anaemia in the pig.

Assuming that dosing is done correctly the piglet may still be at risk to the hazard of ineffective entry of iron medication due to back flow and drops failed to be injected. It's not unusual that ineffective administration of parenteral iron results in 2-4 drops spilled from the injection site – but how important can that be?

Improvements in porcine genetics and productivity have increased the need of iron administered to the piglet, and even the industry standard of 200 mg injectable iron supplement may in itself be insufficient. If drops are spilled when injected, this certainly can cause a suboptimal situation to worsen.

Pharmacists generally consider 1 drop equivalent to 0.05 ml, which means that 1 ml makes up 20 drops. Only a high degree of concentration and treatment discipline separates treatment success from failure in the delivery of correct amount of iron; how much iron ends up as “OP” injections instead of “IP” injections – “on the piglet” vs. “in the piglet”.

High dose – 1 ml single injection

This protocol implies use of a 200 mg/ml product and each drop of 0.05 ml contains 10 mg iron. Thus, if 4 drops fail to be injected; approximately 40 mg end up as “OP” injections. The piglet is now getting only $200-40=160$ mg of iron and is in great risk of developing severe iron deficiency anaemia.

Low dose – 2x1 ml single injection or repeated injections

This protocol implies use of a 100 mg/ml product and each drop of 0.05 ml contains 5 mg iron. Despite the lower amount of iron per drop, this protocol is at greater risk of failing, because reaching standard dose amounts of iron in one injection, requires 2 ml's of volume to be injected at the injection site. This increases the backflow and likely causes far greater losses of e.g. 8-10 drops. Thus, if 10 drops fail to be injected; approximately 50 mg end up as “OP” injections. The piglet is now getting only $200-50=150$ mg of iron and is in great risk of developing severe iron deficiency anaemia. Alternatively the use of a 100 mg/ml iron product require repeated injections, in which case the risk of 4 drops failing to be injected per injection may repeat itself twice. Approximately $2 \times 20=40$ mg ends up as “OP” injections. The piglet is now getting only $200-40=160$ mg of iron and is still in great risk of developing severe iron deficiency anaemia.

In best practice anaemia care, quick wins can be made by attending to simple details of the daily routine – every drop counts!

Sincerely
The Uniferon Team