

QUALITY IMPROVEMENT ON ANALYSIS OF VASECTOMY SUCCESS

Background

The continual process improvement within Urological health, specifically Vasectomy, is the aim of this project. Vasectomy is a commonly performed medical procedure to ensure sterility in men. Although there is high success rate of sterility, there is a 1 out of 2000 occurrence of pregnancy. The procedure causes a disruption of the vas deferens via occlusion or separation. The procedure is often done in the outpatient clinic setting or in the operating room. Guidelines for determining Vasectomy success (male sterility) vary from visualization of rare motile and non-motile sperm to complete azoospermia. Vasectomies are generally performed in office settings at Urological practices nationwide. Post vasectomy Semen analysis are utilized as reliable indicators of success as per American Urological Association Guidelines.

Purpose: This quality improvement project focused on thorough consistent analysis and determination of semen samples for azoospermia. Male sterility should be confirmed with the highest level of scrutiny and evidence-based evaluation.

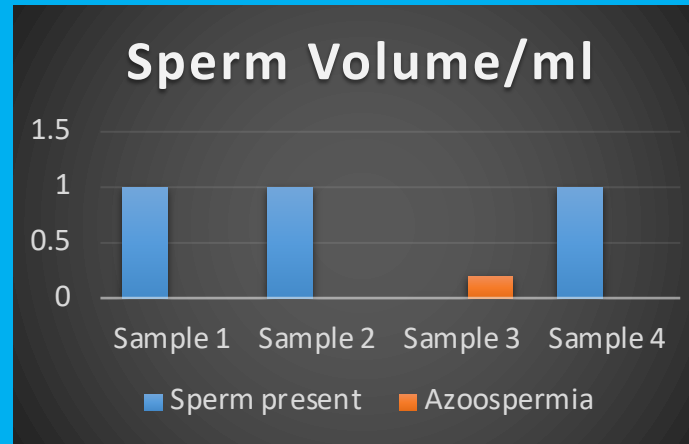
Methodology: Initially, post vasectomy semen analysis (PVSA), were physically viewed by any available MD, PA or NP within the practice via microscopy. Some providers were looking for motile sperm, some were looking for azoospermia. The intervention was a policy and practice change that streamlined and removed variability amongst microscopic visualization of sperm between clinicians. For 12 weeks PVSA samples were sent to an outside laboratory for confirmation..

Samples were analyzed at 6 week and 8-week post procedure. If azoospermia was achieved with first sample, a second sample was still required for confirmation. Consequently, if sperm was noted on a second sample, then a third sample was obtained. The data analyzed was from a first drop off from 4 patients (figure 1)

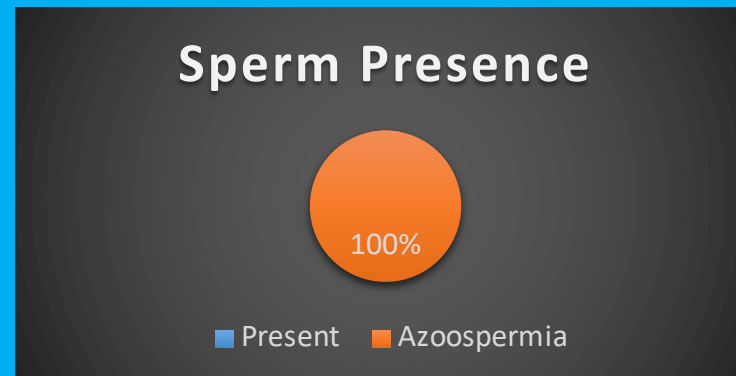
Figure 2 shows results after the guideline was changed on the second drop off from the same 4 patients.

None of the results regarded Motile vs Non-Motile Sperm.

Outcomes

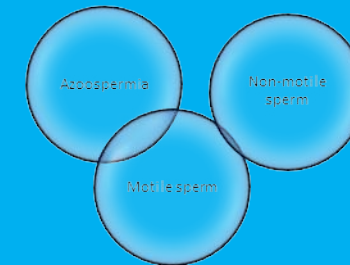


Our first testing method gave the patient and the provider a quantitative result. This method proved to be confusing to patients because they could not interpret results as positive or negative. 3 of the initial test came back with low volume present sperm and 1 test with complete azoospermia. (Below)The testing and resulting process was changed to show presence or absence of sperm only.



Implications for Practice

- Vasectomy success measured in a streamlined objective method decreases risk of confusion amongst patients and clinicians
- Determination of vasectomy success reduces healthcare cost related to multiple specimen analysis due to ambiguity.
- This process can be streamlined and applied to other urology practices.



Limitations:

- Relatively small sample size
- Singular Urological practice and outside laboratory

Recommendations:

- Consider the patient interpretation of health-related material in planning laboratory tests.
- Meaningful use guidelines on health literacy would support further transparency of test results.
- Replicate project to ensure patient understanding of results.