ARL

Amanda Reeves

From: Justin Howes
Sent: Thursday, 12 May 2016 11:35 AM
To: Allan McNevin
Cc: Kirsten Scott
Subject: FW: Diff lysis slide investigation

Hey Al
Some reporters were discussing ideas re ER and DLYS slides and Amanda came across them and asked them to write them down so that they could potentially be considered in any reviews/projects that might develop.

Below are the ideas explored by a few reporting staff worth considering.

JAH

-Identifying a staining/fixing issue:

-Suggest collecting run off from slide washing, centrifuging and making a slide to stain and observe possible presence of cellular material that has washed off

-Is liquid added to the slide spread out to increase surface area to facilitate drying? Or just left as a drop?

-Suggest making sure that slides are fixed properly on the hot block prior to staining. An experiment to identify how long is sufficient should be conducted. The SOP does not clarify how long slides are left, what temperature the hot block is on, or how much sample is added - these variables should be investigated for best outcome and then fixed.

-Suggestion of agitating swab and water with pipette prior to vortexing and waving slide through flame prior to staining.

-Suggest having a parallel duplicated study using methanol as a slide fixative before the addition of stain.

-Datamining (which may or may not include the examination of diff slides not done at the time) of past samples including:

-Result of diff slide from micro neg/PSA pos samples

-Result of diff slide from micro pos/low sperm count samples

-Result of diff slide from high quant/ low micro samples

-Collection of epithelial number data and sample type for these datamined samples also (with the thought that a low number of epi cells in certain samples could indicate the loss of sample)

-Investigation of the amount of liquid added to the swabs

-Too little added may mean that sperm present may not be expelled from the swab

-Too much added may mean that the sample is too diluted

-Suggest making control swabs and checking the process step by step

The major overarching concerns of this issue are the fact that in certain circumstances we may not have sent samples for DNA profiling at all (micro, AP and PSA neg) and therefore have missed evidence. Also, occasionally we are asked in court specifically about the number of sperm seen in a sample – if we know that this number is unreliable, how happy will reporters be to quote numbers?

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