

Baby Badger Network ECHO

Problem of Practice Summary

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Case Presenter: Caroline Kielczewski

Brief Case Summary: Nonpaternity was identified on genome sequencing

In addition to the positive benefits of ES/GS comes the potential for uncovering unexpected findings, such as misattributed parentage (MP) (nonpaternity or nonmaternity), an incidental finding. MP can be an incidental finding in several types of genetic tests, especially when parental samples are analyzed. Because this finding can have significant personal and family implications, caregivers should be informed about the possibility of this (and other) types of incidental findings before the test is performed

For exome and genome sequencing, nonpaternity is identified when the relatedness of samples appears inconsistent with the reported relatedness on the requisition form.

Considerations for addressing nonpaternity when a parent discloses prior to testing

- Perform test as a duo or proband only
- A sample could be collected from a different paternal family member to create a new trio

Considerations for addressing nonpaternity identified after the report returns:

- Each case should be addressed independently and sensitively
- The finding should be a secondary consideration that does not interfere with effective clinical care
- New sample(s) could be collected to rule out sample error
- Confirm whether sperm/egg donor was used
- Confirm whether FOB had a bone marrow transplant and/or recent blood transfusion
- A modified report without the paternal sample/info could be requested from the lab
- Some providers will communicate the nonpaternity results to the mother in a private conversation but will not disclose to the putative father or proband
- Consider consultation with genetic counselors, geneticists, other clinicians or ethics board

Also discussed

- Some institutions have a policy where both parents must be consented, others allow only one parent to be consented
- If both parents aren't available for consenting simultaneously, the Exome/Genome Informed Consent in the NICU setting vide may be helpful
- Facilitate decision making is often used when parents don't agree on whether to pursue testing. Some clinicians decide to error on side of not proceeding with testing if both parents aren't in agreement.