AXIN2 Mutations

What You Should Know About AXIN2 Mutations
Individuals with an AXIN2 gene mutation have an increased risk to develop colon polyps and colorectal cancer. Individuals may also have oligodontia (missing teeth) and may have sparse body hair or eyebrows. There is limited information regarding the specific lifetime cancer risks for individuals with AXIN2 mutations.

Cancer Risks Associated with an AXIN2 Mutation
Recent evidence has found that individuals with a mutation in AXIN2 have an increased risk for adult-onset colon adenomas, polyps, and colorectal cancer. The exact risk to develop colon cancer for patients with an AXIN2 mutation is currently unknown. Additionally, the number, type, and location of polyps can vary.

Risks to Family Members
Mutations in the AXIN2 gene are inherited in an autosomal dominant fashion. This means that children, brothers, sisters, and parents of individuals with an AXIN2 mutation have a 1 in 2 (50%) chance of having the mutation as well. Individuals with an AXIN2 mutation may have no signs of the condition, one sign or more than one sign. Both males and females can inherit a familial AXIN2 mutation and can pass that it on to their children.

Managing Cancer Risks
The following surveillance is recommended by the National Comprehensive Cancer Network (NCCN v3.2019):

- Begin colonoscopy at age 25-30, repeating every 2-3 years if negative.
- If polyps are found, colonoscopy should be performed every 1-2 years with consideration of surgery if the polyp burden becomes unmanageable by colonoscopy.

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