

## Advanced Immuno-Oncology (I-O) ChangeMakers

### Action Learning Projects to Improve Cancer Care

<b>Project Title</b>	<b>Modifying specimen processing for small biopsies to improve biomarker testing</b>
<b>Problem/Challenge</b>	One of the key challenges is to perform diagnostic, molecular, and ancillary testing on limited small biopsy tissue. With the wide use of minimally invasive tissue sampling techniques such as fine needle biopsy/aspiration and EUS, it is not uncommon in our clinical practice for us to subject the patients for re-biopsy to get tissue for molecular and ancillary studies because of insufficient tumor tissue in the initial biopsy.
<b>Aim/Goal</b>	Modify specimen processing for small biopsy so that enough tissue remains for biomarker testing
<b>Key Interventions</b>	Standard tissue processing in pathology is optimally designed for rendering a histologic diagnosis, which lead to waste of tissue. We will modify our specimen processing for small biopsy to maximize the preservation of tissue, which can be used for molecular and ancillary studies. We will train our laboratory technicians on this new process and assess how it impacts workload and biomarker testing.
<b>Summary of Results</b>	<p>Our modified tissue processing includes two cassettes for multiple fragments of small tissue (instead of one), shallow facing and upfront unstained slides for small biopsy suspicious for malignancy. The modified tissue processing improved turnaround time for sign-out molecular and ancillary studies. This also, most importantly, reduced the possibility of patients to need invasive re-biopsy for ancillary studies.</p> <p>Moving forward, we will continue to balance the need for tissue preservation and workload/cost. This project has also allowed us to communicate more with clinicians and to remind them to get as much tissue as possible during the initial biopsy when molecular and ancillary studies are expected. We plan to engage oncologists in discussions on ways to optimize tissue triage for different ancillary studies such as liquid biopsy for molecular mutation studies, tissue for PD-L1 IHC, etc.</p>
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