

ColoProg workflow steps 1–6:

1



- Patient receives surgery
- Formalin fixed paraffin embedded (FFPE) tissue used for pathology

2



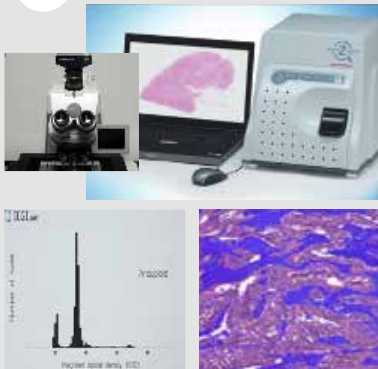
- Treatment discussed with patient
- ColoProg test requested by clinician
- FFPE slide sent to OCB laboratory

3



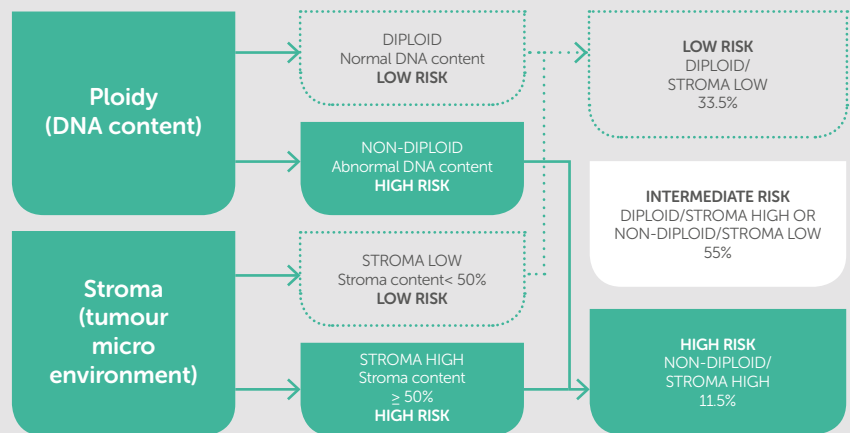
- Sample and requisition form received and logged by laboratory
- Tumour sample processed for stroma and ploidy analysis

4



- Digital image analysis carried out for
 - Stroma (tumour image analysis)
 - Ploidy (DNA content determination)
- Stroma and ploidy data combined to produce risk category designation
- Final data set approved by pathologist

5



6

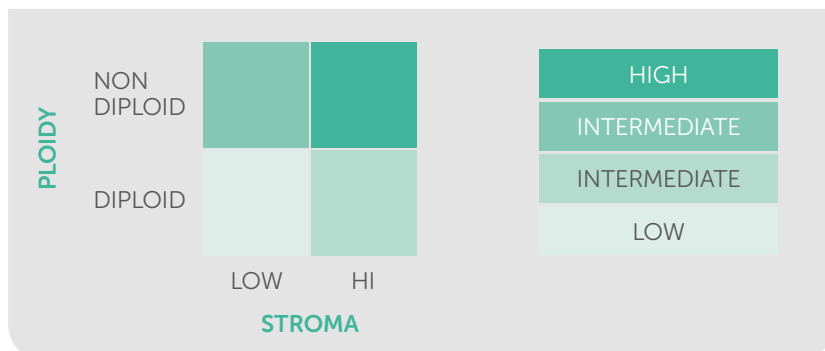


What is ColoProg?

- A clinical digital pathology tool that combines analyses of Stage II DNA ploidy and tumour stroma content
- Initially validated using the QUASAR2 clinical trial^(1,2) and two other studies providing over 1000 Stage II patients for analysis³

What does ColoProg do?

- Uses the proprietary ColoProg algorithm to determine patient risk category
- Stratifies patients into low, intermediate and high-risk groups³



Why use ColoProg?

- Difficult to identify which Stage II colorectal cancer tumour patients require adjuvant chemotherapy⁴
 - About 50% Stage II patients are given chemotherapy in UK³
- ColoProg enables clinicians to determine risk of recurrence, potentially sparing overtreatment of patients who would not benefit from adjuvant chemotherapy⁵
 - 33.5% of Stage II tumours are low risk according to ColoProg validation³
 - Long term effects of unnecessary chemotherapy can be avoided
 - May provide healthcare cost savings by avoiding unnecessary chemotherapy
- ColoProg combines DNA and tumour microenvironment markers to stratify patients into groups of high and low risk of recurrence with a hazard ratio of 2.95 ($P < 0.001$) compared to the leading competitor ($HR = 1.47, P = 0.046$)³
- Meets patient safety and enhanced patient experience standards (NHS Outcomes Framework)⁶

References:

1. Kerr RS, et al. Adjuvant capecitabine plus bevacizumab versus capecitabine alone in patients with colorectal cancer (QUASAR 2): an open-label, randomised phase 3 trial. *Lancet Oncol.* 2016 Sep 19. pii: S1470-2045(16)30172-3.
2. Fotheringham S et al. A prognostic marker for colorectal cancer: combining analyses of ploidy and stroma. *Annals of Oncology* 27 (Supplement 2): ii118–ii128, 2016.
3. Danielsen HE et al. A prognostic marker for colorectal cancer: combining ploidy, stromal, and mutational analyses. Submitted *Annals of Oncology* 2017.
4. Quasar Collaborative Group, et al. Adjuvant chemotherapy versus observation in patients with colorectal cancer: a randomised study. *Lancet* 2007; 370(9604): 2020–9.
5. Benson AB 3rd, et al. American Society of Clinical Oncology recommendations on adjuvant chemotherapy for stage II colon cancer. *J Clin Oncol.* 2004 Aug 15;22(16):3408-19
6. NHS Outcomes Framework: at-a-glance. Department of Health 2016.