



# Optimizing strategies for the treatment of colorectal cancer in the biomarker era



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# Expert panel



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# Agenda

**Stratifying patients to optimize first-line therapy in CRC**

**Current techniques and recent advances in biomarker testing for patients with CRC**

**The role of biomarker testing in the evolving CRC treatment landscape**

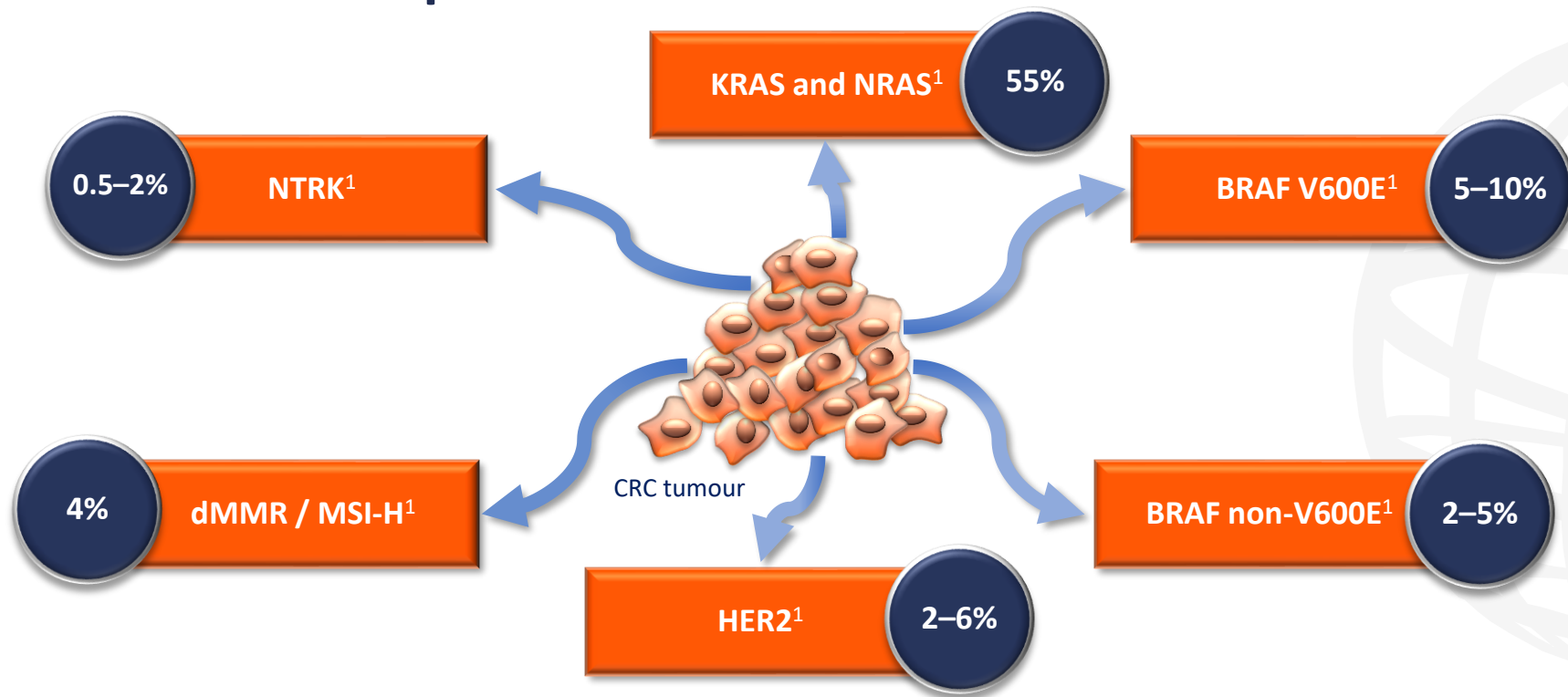
# Stratifying patients to optimize first-line therapy in CRC

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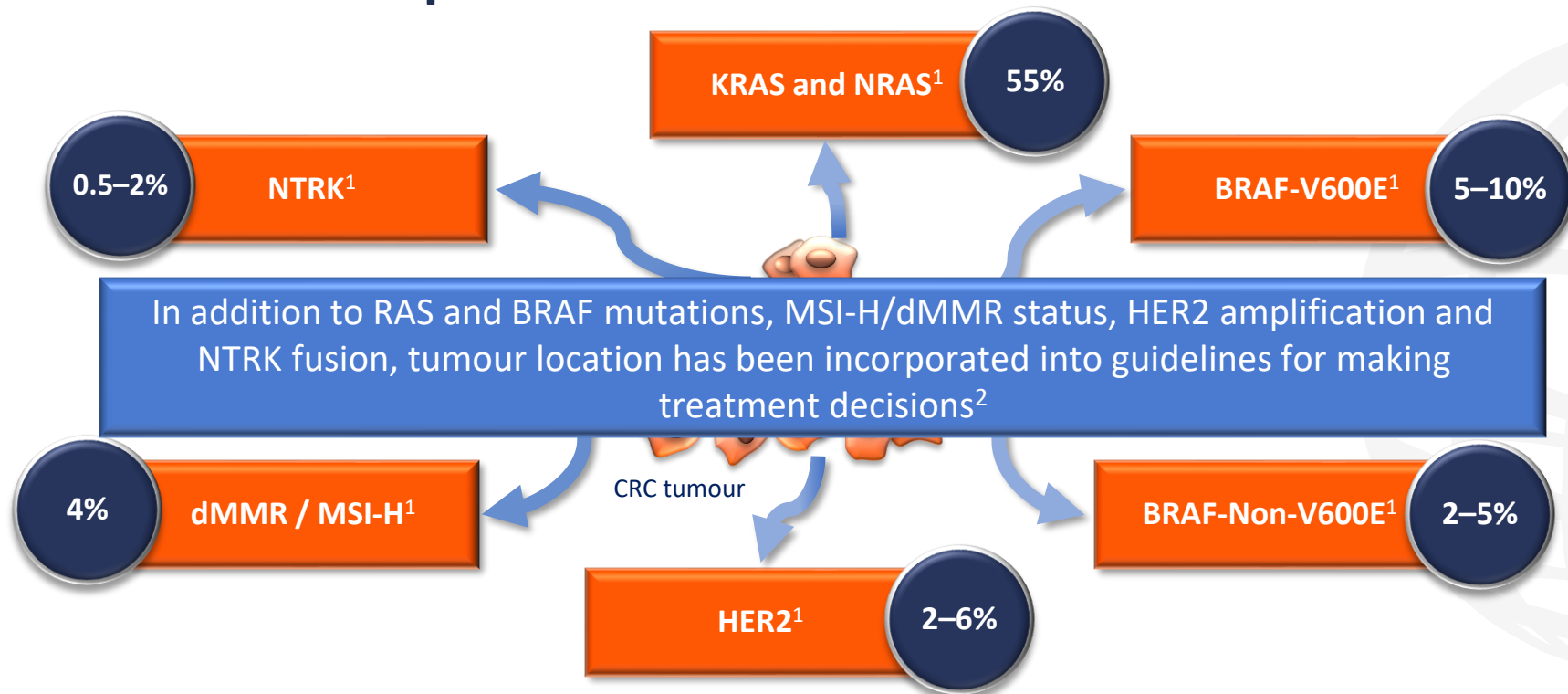
# Overview and prevalence of common mCRC biomarkers



BRAF, v-Raf murine sarcoma viral oncogene homolog B; dMMR, deficient mismatch repair; HER2, human epidermal growth factor receptor 2; KRAS, V-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog; mCRC, metastatic colorectal cancer; MSI-H, microsatellite instability-high; NRAS, neuroblastoma RAS oncogene homolog; NTRK, neurotrophic tyrosine receptor kinase; RAS, rat sarcoma oncogene.

1. Lee MKC, Loree JM. *Curr Oncol.* 2019;26(Suppl. 1):S7–15.

# Overview and prevalence of common mCRC biomarkers



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# Current techniques and recent advances in biomarker testing for patients with CRC

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# Current biomarker testing methods in mCRC

As the number of biomarkers of relevance increase, understanding the appropriate methods for identifying abnormalities becomes increasingly important

Tissue biopsy



Liquid biopsy

Biomarker testing is performed via the following methods:

- Immunohistochemistry (IHC)
- Fluorescence in situ hybridization (FISH)
- Sequencing techniques:
  - Sanger sequencing
  - Next-generation sequencing (NGS)
  - RNA sequencing

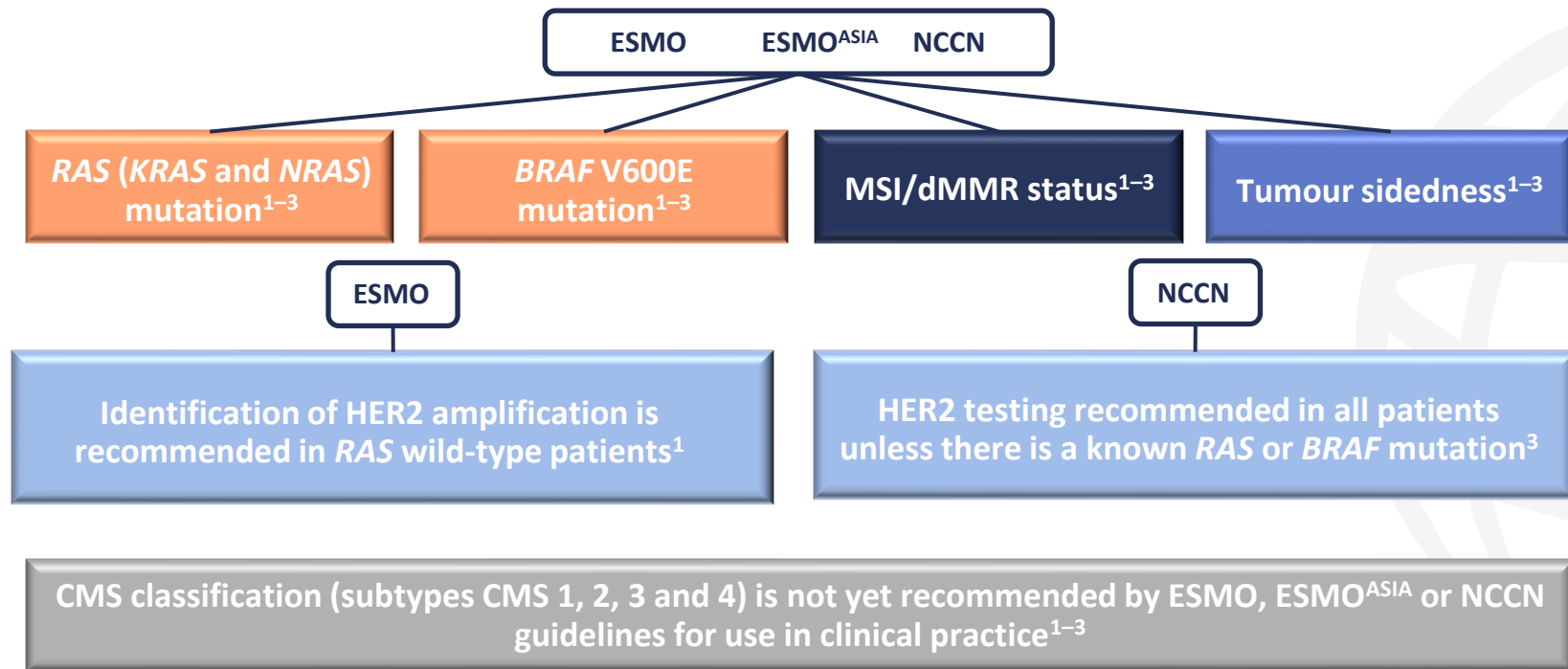
# The role of biomarker testing in the evolving CRC treatment landscape

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# Guideline recommendations for mCRC biomarker testing



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1. Cervantes A, et al. *Ann Oncol.* 2023;34:10–32; 2. Yoshino T, et al. *Ann Oncol.* 2018; 29:44–70;  
3. NCCN. Colon cancer. 2022. Available at: [www.nccn.org/professionals/physician\\_gls/pdf/colon.pdf](http://www.nccn.org/professionals/physician_gls/pdf/colon.pdf) (accessed 14 January 2023).