

Virtual Molecular Tumor Board: Recognition and Management of Targetable Tumor Mutations in Less Common Cancer Types

THE CORRECT ANSWER IS INDICATED WITH YELLOW HIGHLIGHTING.

- 1. The ARROW trial evaluating the selective RET inhibitor pralsetinib (BLU-667) for patients with advanced solid tumors demonstrated which of the following results in the cohort of patients with advanced medullary thyroid cancer and RET fusions?**
 - a. Durable antitumor activity in patients with pretreated but not in those with treatment-naïve disease
 - b. Durable antitumor activity in patients with treatment-naïve but not in those with pretreated disease
 - c. Durable antitumor activity in all patients regardless of treatment history**
 - d. No durable antitumor activity in any of the patient groups
- 2. Which of the following recently FDA-approved targeted agents would be the most appropriate for a 74-year-old patient with unresectable intrahepatic cholangiocarcinoma with a gain-of-function FGFR2 mutation?**
 - a. Larotrectinib
 - b. Ripretinib
 - c. Pemigatinib**
 - d. Infigratinib
- 3. In the management of cancers such as advanced thyroid cancer, cholangiocarcinoma and gastrointestinal stromal tumors (GIST), which of the following testing techniques is sensitive and has the highest chance of discovering multiple mutations at the same time, even though it may be expensive with a longer turn-around time?**
 - a. IHC (immunohistochemistry)
 - b. FISH (fluorescence in situ hybridization)
 - c. RT-PCR (real-time polymerase chain reaction)
 - d. NGS (next-generation sequencing)**
- 4. Which of the following PDGFRA inhibitors is FDA approved for the treatment of unresectable or metastatic GIST harboring a PDGFRA mutation?**
 - a. Avapritinib only**
 - b. Ripretinib only
 - c. Larotrectinib only
 - d. Both a and c
 - e. Both a and b
 - f. Both b and c
- 5. What is the mechanism of action of selpercatinib, a newly FDA approved agent for patients with advanced or metastatic medullary thyroid cancer requiring systemic therapy, which demonstrated low off-target toxicity?**
 - a. Selective PDGFRA inhibition
 - b. Selective MET inhibition
 - c. Selective NTRK inhibition
 - d. Selective RET inhibition**
 - e. Selective mTOR inhibition