Selpercatinib: Adis Evaluation

Clinical Considerations

- Selective RET kinase inhibitor
- Demonstrates durable anti-tumour activity as both first- and subsequent-line therapy
- Shows intracranial efficacy against brain metastases
- Manageable tolerability profile and acceptable safety profile

Plain Language Summary

Background and rationale

- Targeted therapy against the oncogenic driver in tumours carrying such mutations offers the potential for greater anti-tumour efficacy and limited off-target toxicity
- Fusion of the rearranged during transfection (*RET*) gene with another gene is one such driver in a small subset of patients with non-small cell lung cancer (NSCLC)
- Selpercatinib (Retevmo®/Retsevmo®) is a selective RET kinase inhibitor that is taken orally for the treatment of advanced NSCLC with an *RET* gene fusion

Clinical findings

- In the pivotal clinical trial in these patients, selpercatinib demonstrated durable responses both in patients previously treated with platinum-based chemotherapy and patients with no prior treatment
- Selpercatinib also demonstrated anti-tumour activity against brain metastases associated with NSCLC
- Adverse events with selpercatinib were generally manageable with dose reductions and few patients discontinued selpercatinib due to adverse effects

Conclusion

Thus, current data suggest that selpercatinib is a promising new RET-targeted treatment option for advanced *RET* fusion-positive NSCLC