Drugs

PEER-REVIEWED FEATURE

Delafloxacin: Adis Evaluation

Clinical Considerations

- Anionic fluoroquinolone with a unique chemical structure; targets both DNA gyrase and topoisomerase IV
- Noninferior to moxifloxacin in a phase III trial with respect to clinical response rates
- Generally well tolerated, with a tolerability profile generally consistent with that established for patients with bacterial skin infections
- Not associated with QT prolongation or phototoxicity
- Suitable for intravenous or oral administration, with switching from intravenous to oral possible

Plain Language Summary

Background and rationale

- Community-acquired pneumonia (CAP) can be caused by bacterial infection of the lungs, and is a common cause of infection-related deaths.
- As drug-resistant bacteria are becoming more common, new antibacterial drugs are needed.
- Delafloxacin (BAXDELA® in the USA; Quofenix® in the EU) is a fluoroquinolone antibacterial that inhibits bacterial enzymes required for DNA repair and replication.

Clinical findings

- Delafloxacin kills a wide range of bacteria, including some drug-resistant variants.
- During a trial in adults with CAP, delafloxacin was as effective as moxifloxacin (also a fluoroquinolone antibacterial).
- Delafloxacin may be more effective than moxifloxacin in patients with a history of asthma or chronic obstructive pulmonary disease (COPD), although further research is needed.
- Most adverse events with delafloxacin were mild or moderate in severity, with diarrhoea being the most commonly occurring treatment-related adverse event (experienced by < 4% of recipients).
- The adverse effects of delafloxacin were generally consistent with those previously observed in patients with skin infections.

Conclusion

Delafloxacin expands the range of treatments for CAP, and is potentially useful for patients with comorbid asthma or COPD.