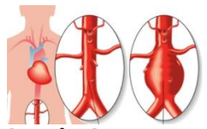
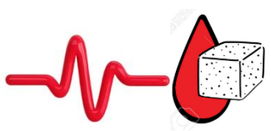
CLINICAL ALERT on Fluoroquinolone (FQ) use

January 2024

NHS Dumfries & Galloway

On 22/1/24, The Medicines and Healthcare Regulatory Agency MHRA UK issued a number of regulatory actions to further restrict systemic and inhaled fluoroquinolones (FQs) use, following a series of review to reduce the risk of disabling, potentially long-lasting (months to years) or irreversible adverse reactions

FQs and associated serious adverse effects (ADR)

 **Musculoskeletal**	Tendon damage (including rupture) may occur within 48 hours, or the effects can be delayed for several months and become apparent after stopping FQs. Risk is increased in > 60 years and those with renal impairment or solid-organ transplants. Avoid use of a corticosteroid with a FQ since coadministration could exacerbate FQ-induced tendinitis and tendon rupture. Use in patients with previous tendon disorders related to FQ use is contraindicated. Other ADR include muscle pain, weakness and joint pain or swelling.
 **Aortic Aneurysm, Dissection & Heart Valve Regurgitation**	FQs have been associated with small increased risk of heart valve regurgitation. Older patients are at a small increased risk of aortic aneurysm and dissection. Patients should be advised about the risk and told to seek immediate medical attention in the case of rapid onset of breathlessness or heart palpitations or sudden severe and constant pain in the abdomen, chest or back.
 **Nervous system**	FQs can induce convulsions (with or without a history of convulsions); this risk is increased when co-prescribed with NSAIDs. Potential irreversible adverse effects of neuropathies associated with paraesthesia, anxiety, fatigue, memory impairment, sleep disorders, and changes in vision, taste, smell or hearing. Risk of psychiatric reactions, including depression and psychotic reactions, which may potentially lead to thoughts of suicide or suicide attempts.
 **QT risk and Blood sugar**	All FQs can prolong QT interval. In 2018, the FDA issued an additional warning that FQs can affect blood sugars.

For other ADRs and for complete information, refer to the BNF and/or https://www.medicines.org.uk

Frequency: MHRA estimates serious reactions occur at rates between 1 and 10 people/ 10,000 treated with FQ. Adverse reactions can occur at any age and without other risk factors

MHRA ACTION POINTS/ RECOMMENDATIONS

- **FQs must now only be prescribed when other commonly recommended antibiotics are inappropriate. It should not be prescribed for self-limiting infections**
- **The FQs available in UK are levofloxacin, ciprofloxacin, ofloxacin and moxifloxacin. In NHS D&G, all FQs are RESTRICTED to certain specific infection. Follow local guidance**
- **Document indications and where appropriate the reasons if FQs are prescribed out with formulary choices**
- **Consider all cautions, contraindications and interactions to determine whether risk outweigh benefits**
- **MHRA states warnings should be explained to patients when advising on risk/benefits for the individual patient and given a Patient Information Leaflet and how to seek advice if experiencing side effects**
- **Report any side effects via Yellow Card Scheme**

Antimicrobial Stewardship Management Team, Dumfries

Feedback can be emailed to: dg.antimicrobialstewardship@nhs.scot. Approved ADTC 31/01/2024. Next Review 31/01/2026