Ciprofloxacin Intravenous Infusion for Adults

Who can administer

May be administered by registered competent doctor or nurse/midwife

Important information

- Consider **intravenous to oral** switch as soon as possible as excellent bioavailability - see further information
- There are numerous important **interactions** - check BNF. For example use with caution in patients receiving drugs known to prolong the QT interval, e.g. tricyclic antidepressants, macrolides, antipsychotics, some anti-arrhythmic drugs. See under 'Dose' for adjustments required in **renal impairment**
- Caution [ref 3]
    - Quinolones may be associated with side effects relating to musculoskeletal, peripheral and central nervous systems, some of which may be serious, disabling and potentially permanent.
    - **Quinolones should be used with special caution in the elderly, patients with kidney disease, those who have had an organ transplantation or in patients being treated concomitantly with corticosteroids.** These patients are at a higher risk of tendon injury.
    - Patients should be informed of the risks and advised to stop treatment and contact prescriber if they experience pain or swelling in tendons / joints /muscle or neuropathy.
- As some of the generic versions are supplied in glass bottles, precautions need to be taken during administration to **prevent possible air embolism**, particularly during central line administration
- **Reserve antimicrobial:** restricted to indications in the antimicrobial prescribing guidelines, or following approval by microbiology/infectious diseases
- Patients must be **well hydrated** to avoid crystalluria
- **Bottles must be vented** in one of two ways [ref 1] Directly by means of a filter needle into the bottle which goes through the rubber stopper and opens into the air, or Direct air vent on the air inlet of the administration set, located between the drip chamber and piercing pin, it is covered with a bacterial retentive filter to reduce the chance of contamination

Available preparations

Ciprofloxacin 200mg per 100ml

Ciprofloxacin 400mg per 200ml

Reconstitution

Already in solution

Infusion fluids

Not required - product ready for infusion

Methods of intravenous administration

Intermittent intravenous infusion

- Administer 400mg over 60 minutes (30 minutes for 200mg dose)
- Slow infusion will minimise patient discomfort and reduce risk of venous irritation

Dose in adults

Usual dose

- Give 400mg every eight to twelve hours

Renal impairment [ref 2,3]

eGFR (ml per minute/1.73m^2)	Maximum permitted dose
30 to 50	No adjustment necessary
10 to 30	Give 50 to 100% of usual dose (i.e. 200 to 400mg every eight to twelve hours)
Less than 10	Give 50% of dose (i.e. 200mg every eight to twelve hours). If severe infection, discuss with Micro/ID (may consider higher dose for short period)
Renal replacement therapy	Consult specialist sources or pharmacy

Further information

- Pharmacokinetic studies have shown that a 400mg bd IV dose is equivalent to 500mg bd PO, and that 400mg tds IV is equivalent to 750mg bd PO
- Incompatible with Heparin. If patient is receiving concomitant heparin ensure line is thoroughly flushed with Sodium chloride 0.9% before and after administration of ciprofloxacin.
- Ensure adequate hydration to prevent crystalluria

Storage

- Store below 25^{0}C
- Do not refrigerate
- All brands: Protect from light- store in outer carton - if removed from outer packaging must be used within 24 hours

References

Ciprofloxacin SPC October 2024 (Noriderm Enterprises Ltd.)

1.Glass bottle warning- see attached memo

2. GAPP guidelines accessed online 19/02/2025

3: Email communication from AST 15th Jan 2019

Ciproxin Truoxin (search term)

Therapeutic classification

Quinolone antibiotic