

FLUCYTOSINE

Indication	<ul style="list-style-type: none"> • Treatment of systemic yeast and fungal infections¹ <ul style="list-style-type: none"> ○ Used in combination with amphotericin B or fluconazole^{1,2} • Cryptococcal meningitis¹ <ul style="list-style-type: none"> ○ Used in combination with amphotericin B³ 	
INTRAVENOUS	Presentation	• Ampoule: 2.5 g in 250 mL
	Dosage ¹	• 50 mg/kg every 12 hours
	Preparation	• Nil required
	Administration	<ul style="list-style-type: none"> • Filter infusion using⁴ • Prime the infusion line and reduce total syringe volume to the prescribed dose <ul style="list-style-type: none"> ○ IV infusion via syringe driver pump over 30 minutes¹ ○ On completion, disconnect syringe and infusion line ○ Flush access port at same rate as infusion
Special considerations	<ul style="list-style-type: none"> • Flucytosine has a narrow spectrum of activity and resistance may develop rapidly <ul style="list-style-type: none"> ○ Use with another antifungal¹ • If renal impairment, adjust dosage and use with caution^{3,5} 	
Monitoring	<ul style="list-style-type: none"> • Toxicity (e.g. bone marrow suppression, hepatotoxicity) associated with prolonged peak concentrations³ greater than 100 mg/L <ul style="list-style-type: none"> ○ Peak level⁶: (2 hours after a dose) 30–80 mg/L ○ Trough level⁶: 25–50 mg/L • Monitor renal function, FBC and LFTs⁶ as clinically indicated 	
Compatibility	<ul style="list-style-type: none"> • Fluids <ul style="list-style-type: none"> ○ 5% glucose⁷, 0.9% sodium chloride⁷ • Y-site⁷ <ul style="list-style-type: none"> ○ No information 	
Incompatibility	<ul style="list-style-type: none"> • Fluids⁷ <ul style="list-style-type: none"> ○ No information • Drugs⁷ <ul style="list-style-type: none"> ○ No information 	
Interactions	<ul style="list-style-type: none"> • Concurrent use of amphotericin B may increase flucytosine toxicity⁸ (monitor serum levels and renal function) • Concurrent use of zidovudine may result in haematologic toxicity⁸ (monitor FBC) 	
Stability	<ul style="list-style-type: none"> • Undiluted solution⁵ <ul style="list-style-type: none"> ○ Store below 25 °C. Precipitation occurs at prolonged storage below 15 °C. ○ Storage above 25 °C may result in formation of 5-fluorouracil, a cytotoxic, which cannot be detected visually 	
Side effects	<ul style="list-style-type: none"> • Blood pathology: leukopenia, thrombocytopenia agranulocytosis reported¹, raised liver enzymes and hepatitis reported⁹ • Digestive: vomiting, diarrhoea⁷ • Integumentary: skin reactions¹ 	
Actions	<ul style="list-style-type: none"> • Systemic antifungal action⁹ • Susceptible fungi convert flucytosine to 5-fluorouracil, a cytotoxic agent incorporated into RNA inducing inhibition of growth and death of the cell⁹ 	
Abbreviations	IV: intravenous, FBC: full blood count, LFT: liver function test,	
Keywords	Flucytosine, Ancotil, antifungal, amphotericin B, fluconazole, 5-flycytosine, 5-FC	

The Queensland Clinical Guideline *Neonatal Medicines* is integral to and should be read in conjunction with this monograph. Refer to the disclaimer. Destroy all printed copies of this monograph after use.

References

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