Antifungal antibiotics

Itraconazole	Oral	1month – 12 yrs: 5 mg/kg twice daily (max 200mg bd) >12yrs 200 mg twice daily	Must be used when treating ABPA with steroids, when taking steroids for whatever reason if aspergillus isolated, and for symptomatic aspergillus infection. See section 6.9. Poorly absorbed, use liquid, on empty stomach if possible. Capsules should be taken with acidic liquid e.g. **coca-cola** and **food**. Stop antacids if possible. Headaches seem commonest problem but in theory hepatotoxic. Adrenal suppression also been seen when combined with budesonide. Do liver function tests if taken for longer than 1 month or if known liver dysfunction. Note interaction with rifampicin.	See **section 6.9** for length of courses.
Terbinafine	Oral	10 – 19kg: 62.5mg od 20 – 39kg: 125mg od 40kg +: 250mg od	For use in combination with an azole antifungal for *Lomentospora prolificans.* Consultant decision. Monitor liver function tests and FBC monthly when given in combination with an azole.	

Posaconazole	Oral suspension	>8 years: 400mg BD Monitor levels. Monitor liver function tests monthly.	2nd line for Aspergillus/ABPA where patients have not responded to or are intolerant of itraconazole. ***Consultant decision*** **(not licensed in <18 years old).** **The tablet and oral suspension are not to be used interchangeably due to the differences in the dosing of each formulation.** Tablets should be used preferentially as in our experience more consistent levels are obtained. **Suspension** should be taken immediately following a meal (preferably fatty meal) to enhance absorption. If this is not possible, may need to use 200mg QDS dosing. **Tablets** can be taken with or without a meal. Levels should be monitored on initiation, on amendment of dosage, if an interacting drug is commenced or efficacy is not observed. Pre-	See section 6.9 for length of courses.
	Oral tablets	>8 years: 300mg BD on day 1, then 300mg OD thereafter Monitor levels. Monitor liver function tests monthly.		

			dose samples (if not possible then a random sample) taken after at least 1 week on therapy. Aim: 1 - 5mg/L For levels >5mg/L review dose with consultant and pharmacist. Note interaction with rifampicin. Levels **when using suspension** reduced by ranitidine and proton pump inhibitors which should be stopped if possible.	
Voriconazole	Oral	**2 – 11 years:** 9mg/kg (max 350mg) bd (Liquid preferred) **12 - 14 years:** **<50kg** 9mg/kg (max 350mg) bd	May be used for ABPA (3rd line) where patients have not responded to or are intolerant of itraconazole or posaconazole. ***Consultant decision*****.** See section 6.9. Take on an empty stomach. **Highly photosensitising** so warn patient re sunlight. High strength sunblock should be used in summer or on holidays for 4 weeks after	See **section 6.9** for length of courses

		>50kg 400mg bd for 2 doses then 200mg bd (max 300mg bd). **15 years +:** **<40kg:** 200mg bd for 2 doses then 100mg bd (max 150mg bd) **>40kg**: 400mg bd for 2 doses then 200mg bd (max 300mg bd).	course finished. Refer to dermatologist if photosensitivity reaction occurs. Risk of squamous cell carcinoma of the skin has been reported in long term use in patients with photosensitivity and other risk factors. Adrenal suppression has been reported in patients also taking inhaled corticosteroids. Levels should be monitored on initiation, on amendment of dosage, if an interacting drug is commenced or efficacy is not observed. Pre-dose samples taken after at least 3 days on therapy. Aim: 1.3 - 5.7mg/L Monitor liver function tests + U&E's weekly for first month then monthly thereafter.	
Liposomal amphotericin (Ambisome)	IV	5 mg/kg od Start at 1 mg/kg once daily then increase to 5 mg/kg od over 3 days. Give test **dose** of 100 mcg/kg (max 1mg) over 10 mins. Observe for 30 mins then continue Treatment.	For invasive or troublesome aspergillus. Check **renal/liver function and U&Es at least 3/week. Use with caution with other nephrotoxic antibiotics** e.g. aminoglycosides, colistin. We DO NOT use the standard amphotericin preparation (fungizone) for IV use.	***Consultant decision***. Administer over 30 mins. Compatible with 5% Dextrose only. Flush pre & post dose with 5% dextrose. Final concentration of the solution should be 0.2 – 2 mg/ml.

Caspofungin	IV	<3 months: 25 mg/m^2 od 3months - 1yr: 50 mg/m^2 od >1 yr: 70 mg/m^2 (max 70mg) on day 1 then 50 mg/m^2 (max 70mg) od. This can be increased to 70 mg/m^2 (max 70mg) od if lower dose is tolerated but inadequate response	For invasive or troublesome aspergillosis. Reduce dose in liver impairment (see BNFc).	***Consultant decision*.** Infuse over 60 mins. Dilute to concentration not exceeding 500 mcg/ml with 0.9% sodium chloride. Incompatible with glucose solutions.