

Biannual summary of opportunistic mycoses and aerobic actinomycetes  
in New Zealand, July - December 2010.

Organism	No. of cases	Site	Clinical data
<b>Filamentous fungi</b>			
<i>Absidia corymbifera</i>	2	Ear swab (1) Shin wound (1)	DE+. Clinically fungal otitis externa. Multi trauma RTA, fracture femur.
<i>Aspergillus fumigatus</i>	5	BW (4)  Sphenoid (1)	T-cell ALL. Neutropenic. Chest lesion. On prophylactic FCZ → LAmB (1), newly diagnosed AML, HRCT showed severe bilateral upper lobe nodules with surrounding ground glass appearance. Rx VOR with clinical improvement (1), post lung transplant (1), oncology patient. Culture negative. BW Galactomannan = 6.8 +ve (1). Pituitary adenoma, intra-op noted to have sphenoid sinus mycetoma → surgically removed.
<i>Aspergillus terreus</i>	1	Eye socket	Post bomb blast traumatic injury.
<i>Dissitimum exedrux</i>	1	Maxillary antrum contents	DE+. Allergic sinusitis not resolved with surgery.
<i>Fusarium</i> species	1	Scalp skin scraping	DE+ with fungal elements characteristic of a mould seen. Recurrent staphylococcal infections. Hyper-IgE syndrome.
<i>Paecilomyces lilacinus</i>	1	Exit site swab	DE-ve. Haemodialysis patient, colonisation at exit site.
<i>Phialophora richardsiae</i>	1	Fluid from hallux	DE-ve. Fluctuant mass.
<b>Yeasts</b>			
<i>Aureobasidium pullans</i>	1	Foot dorsum lump & ankle joint	DE-ve. Isolated from the two areas 1 month apart.
<i>Candida albicans</i>	31	Blood culture (23)  Pleural aspirate (2)	UTI, abdominal complications. ICU patient. Rx FCZ (1), influenza patient on ECMO (1), ulcerative colitis with total colectomy and J-pouch formation. Rx FCZ (1), oesophageal SCC with broncho-oesophageal fistula. Rx FCZ (1), HSV skin infection, line sepsis (1), CF (1), severe congenital diaphragmatic hernia, jejunostomy and gastrostomy tubes <i>in-situ</i> . On TPN (1), enterocutaneous fistula (1), line sepsis (2), spinal unit patient (1), ICU patient (2), post surgery (1), patient deceased, necrotising pancreatitis (1), caecal perforation 2° to surgery (1), multi organ failure, ulcerative colitis, deceased (1), COPD, urosepsis, liver failure, deceased (1), fistula (1), acute disseminated encephalomyelitis (1), perforated duodenal ulcer, septic post-op (1), NR(2). Post laparotomy for strangulated hernia, empyema (1), NR (1).

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		Skin biopsy – multiple sites (1)	Meningococcal septicaemia. Patient deceased.
		Gallbladder aspirate (1)	Post cholecystectomy.
		Peritoneal aspirate (1)	Perforated duodenal ulcer, recurrent bowel obstructions.
		CAPD (2)	Diabetes, ESRF with peritonitis (1), NR (1).
		Wound swab (1)	Sternal wound infection post lung transplant. Rx FCZ.
<i>Candida albicans</i> & <i>C. glabrata</i>	1	Gallbladder aspirate	Post cholecystectomy.
<i>Candida albicans</i> & <i>C. parapsilosis</i> complex	2	Blood	Elderly surgical patient (1), 80% burns following petrol explosion (1).
<i>Candida dubliniensis</i>	2	Liver biopsy (1)	DE+. ALL patient already on antifungal agents & failed to grow. Sample sent for 18S DNA sequencing.
		Pus from breast collection (1)	Haematoma in implant cavity.
<i>Candida glabrata</i>	9	Blood (8)	AML (1), line sepsis (1), congenital cerebral palsy, patient deceased (1), severe spina bifida, VP shunt <i>in-situ</i> (1), patient deceased, NR (1), multiple isolations, presumptive endocarditis following AVR. Rx AmB & CAS (1), gastric lymphoma. Rx AmB → FCZ (1), patient deceased 2° to thigh myositis; also isolated with MRSA (1).
		Pleural aspirate (1)	Spina bifida, post laparotomy.
<i>Candida guilliermondii</i>	1	Blood	CGD X-linked with severe phenotype, line sepsis.
<i>Candia kefyr</i> , <i>C. krusei</i> & <i>C. lusitaniae</i>	1	Bile	Liver transplant 2006 due to Hepatitis B. Now graft failure.
<i>Candida lusitaniae</i>	1	Blood	Oncology patient.
<i>Candida parapsilosis</i> complex	27	Blood (11)	CF, line sepsis, portacath placed for antibiotic delivery (1), ICU patient post surgical repair of chronic enterocutaneous fistulation (1), AML (1), adenocarcinoma, multi-organ failure. Deceased (1), post abdominal surgery. Rx FCZ (1), lupus nephritis → renal transplant. Line sepsis (1), osteomyelitis. Rx FCZ (1), TB osteomyelitis on spine & finger. Rx FCZ (1), haemodialysis (1), NR (2).
		Thumb bone (1)	Diabetes, osteomyelitis of distal phalanx.
		Knee aspirate (2)	IHD, kidney disease, gout, Rx FCZ with marked improvement (1), RA, steroid use. Not treated (1).
		CAPD (12)	ESRF on CAPD.
		Ankle aspirate (1)	Osteomyelitis. Rx FCZ → cured.
<i>Candida tropicalis</i>	4	Blood (3)	Respiratory patient (1), cholecystectomy, pancreatectomy for tumour, splenectomy. Patient died (1), diverticulitis & fistula, recurrent

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			bowel obstructions (1).
		CAPD (1)	Type I diabetes, ESRF on CAPD. Rx FCZ.
<i>Cryptococcus neoformans</i>	2	CSF (1)	ALL.
		Blood (1)	NR.
<i>Malassezia pachydermatis</i>	1	Blood	Preterm baby.
<i>Rhodotorula</i> spp	1	Blood	Fever.
<b><i>Pneumocystis jirovecii (carinii)</i></b>			
	18	BW/BAL (7)	Breast Ca, immunocompromised, ground glass appearance on CXR (1), immunocompromised with ground glass appearance on CXR (1), myeloma (1), myelofibrosis (1), T-cell lymphoma (1), NR (2)
		Sputum/Induced sputum (10)	HIV+ (5), lymphoma (1), Oncology patient (2), multiple myeloma, post stem cell transplant (1), NR (1).
		Lung tissue (1)	Post mortem sample. HIV+.
<b>Aerobic Actinomycetes</b>			
<i>Gordonia bronchialis</i>	1	Abdominal wall	3/52 history of sudden appearance of lump below umbilicus, consistent with haematoma of abdominal wall.
<i>Nocardia abscessus</i>	1	Corneal scrape	Mechanic something fall in eye whilst working under motor vehicle.
<i>Nocardia asteroides</i> complex	3	Sputum (1)	NR.
		Wound swab (1)	Injured hand whilst gardening → ulcerating hand wound.
		Bronchial washing (1)	Bronchiectasis.
<i>Nocardia farcinica</i>	2	Pleural fluid (1)	DE+, elderly.
		BW (1)	LUL mass. DE+.
<i>Nocardia nova</i> complex	2	Sputum	Bronchiectasis.
<i>Nocardia nova</i>	5	BW (1)	Pulmonary infiltrate.
		Sputum (3)	3 different patients, repeatedly isolated from TB enrichment culture, ?significance.
		Thigh & axilla (1)	Multiple co-morbidities including renal transplant & diabetes. Widespread <i>Nocardia</i> abscesses including brain. Patient died.
<i>N. nova</i> & <i>Gordonia</i> spp	1	Eye socket	Enucleated eye.
<i>Nocardia veterana</i>	1	Sputum	Non-resolving chest infection, been on Ciprofloaxcin.
<i>Rhodococcus species</i>	2	Tibial nail (1)	Fracture tibia with fixators <i>in-situ</i> .
		Spine (1)	Deep distal spine wound.
<i>Tsukumurella</i> spp	3	Sputum	3 different patients, repeatedly isolated from TB enrichment culture, ?significance.

**KEY:**

AmB	Amphotericin B	FNA	Fine needle aspirate
ALL	Acute lymphoblastic leukaemia	HIV	Human immunodeficiency virus
AML	Acute myeloid leukaemia	HRCT	High resolution CT scan
AVR	Aortic valve replacement	HSV	Herpes simplex virus

BAL	Bronchoalveolar lavage	ICU	Intensive care unit
BW	Bronchial washing	IHD	Ischaemic heart disease
Ca	Carcinoma	LAmB	Liposomal amphotericin B
CAPD	Continuous ambulatory peritoneal dialysis	MRSA	Methicillin resistant <i>Staphylococcus aureus</i>
CAS	Caspofungin	NR	Clinical data not received
CF	Cystic fibrosis	RA	Rheumatoid arthritis
CGD	Chronic granulomatous disease	Rx	Treatment
COPD	Chronic obstructive pulmonary disease	SCC	Small cell carcinoma
CSF	Cerebrospinal fluid	SLE	Systemic lupus erythematosus
CXR	Chest x-ray	TPN	Total parenteral nutrition
DE	Direct examination	UTI	Urinary tract infection
ECMO	Extracorporeal membrane oxygenation	VOR	Voriconazole
ESRF	End stage renal failure	VP	Ventricular-peritoneal
FCZ	Fluconazole		

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