

**Biannual summary of opportunistic mycoses and aerobic actinomycetes in New Zealand,
July-December 2009**

Organism	No. of cases	Site	Clinical data
Filamentous fungi			
<i>Aspergillus fumigatus</i>	10	Thoracic tissue, pleural aspirate & chest drain fluid (1)	Ewing's sarcoma patient diagnosed approx. 1 year ago. Treated with radiation therapy & surgical removal of chest wall & some ribs. Chest flap <i>in-situ</i> . Presented with soft tissue abscess not responding to antibiotics Rx AmB & VOR.
		Lung tissue (2)	Prolymphocytic B cell leukaemia, neutropenic fever with LLL pneumonia (<i>S. pneumoniae</i>). Deceased (1), cavitary pneumonia, white lumps visible in lung => 3+ dichotomous branching hyphae. +ve also for H1N1 (1).
		Cerebellar abscess (1)	ALL presented with visual hallucinations, persisting fevers, severe headache & photophobia. CT scan revealed brain abscess. Rx LAmB then changed to VOR.
		Sputum (3)	Oncology patient, neutropenic fever, productive cough (1), hyper-IgE syndrome, chronic pneumothorax, Aspergilloma in pleural cavity. Long term prophylaxis. Rx ITR, CAS, VOR, AmB (1), AML; probable invasive fungal infection. Rx AmB (1).
		Maxillary sinus mass (1)	?Fungal ball sinusitis. DE-ve.
		Bronchial wash (2)	AML, post-chemotherapy (1), x China. DE+. Past history Tb. Bronchiectasis. Rx VOR (1).
<i>Fusarium solani</i>	1	Corneal scrape	DE+, also isolated from contact lens with <i>Acanthamoeba</i> species.
<i>Fusarium</i> species	2	Foot abscess	Foreign body (wood) in foot, removed surgically. No antifungals (1), fell into rose garden, cellulitis (1).
<i>Mucor indicus</i>	1	Duodenal biopsy	Gastrointestinal zygomycosis, no obvious underlying pathology. Rx LAmB. Also isolated with <i>C. glabrata</i> .
<i>Paecilomyces lilacinicus</i>	1	EVD CSF	DE+. Raised intracranial pressure, permanent VP-EVD shunt to normalise pressure, colonised with mixed GNB too. Occipital lesions & cerebellar masses. Presented with ~7 days visual hallucinations & headaches. Neutropenic.
<i>Scedosporium</i>	1	Ear biopsy	DE+. Malignant otitis media has

Organism	No. of cases	Site	Clinical data
<i>apiospermum</i>			mastoidectomy. Rx VOR.
<i>Schizophyllum commune</i>	1	Maxillary sinus mucus	Chronic sinusitis with fungus ball. DE+.
Yeasts			
<i>Candida albicans</i>	38	Blood culture (26)	Also isolated from ECMO femoral cannula tip. Deceased (1), ALL. Rx LAmB & removal of portacath (1), ESRF 2° to SLE. IgA myeloma, line sepsis. Deceased (1), premature baby in ICU (4), previous renal transplant 7 years ago, failing. Deceased (1), nephrostomy tube <i>in-situ</i> , type II diabetes, also growing in urine. Rx FCZ (1), post bowel surgery, ?Line sepsis. Rx FCZ (1), 77% burns, also growing from skin (1) bowel perforation. Rx FCZ (1), pancreatitis, ischaemic bowel (1), perforated large bowel, multiorgan & respiratory failure. Also isolated with <i>C. glabrata</i> . Deceased (1), febrile on TPN (1), on TPN (1), line sepsis (2), immunocompromised, multiple peripheral emboli, Rheumatoid arthritis, perforated pre-pyloric ulcers (1), ALL. Rx LAmB & removal of portacath (1), NR (6).
		Peritoneal cavity abscess (1)	Perforated duodenal ulcer. Rx FCZ.
		Hip aspirate (1)	NR
		Subphrenic abscess (1)	NR
		Shoulder aspirate (1)	DE-ve, SLE, osteoarthritis AC joint.
		Knee aspirate (1)	DE-ve, TKJR.
		Superficial flank nodule (1)	ALL. Rx LAmB, switched back to FCZ. Nodules also present in lung & back muscles.
		Vitreous aspirate (1)	NR
		Aorta bifemoral graft (1)	NR
		CSF (1)	DE-ve.
		Gall bladder aspirate (1)	NR
		CAPD (2)	ESRF on CAPD.
<i>Candida dubliniensis</i>	2	Blood (1)	CVL <i>in-situ</i> .
		CAPD (1)	Renal patient, PD catheter removed.
<i>Candida glabrata</i>		Blood (3)	Colon tumour. Rx FCZ (1), PICC line <i>in-situ</i> (1), NR (1).
		Abdomen cavity tissue (1)	DE+. NR.
<i>Candida krusei</i>	2	Blood (1)	Isolated with <i>E. faecalis</i> & <i>E. cloacae</i> . Not treated.
		Peritoneum (1)	DE+. NR.
<i>Candida parapsilosis</i>	17	Blood (10)	Renal patient (1), ESRD on haemodialysis (1), IHD (1), osteomyelitis, line <i>in-situ</i> (1), left decortication (1), haemodialysis (1), ESRF, permacath <i>in-situ</i> . Repeatedly isolated. Line removed (1), NR (3).

Organism	No. of cases	Site	Clinical data
		CAPD (5)	Renal failure & type II diabetes (1), ESRF on CAPD (4).
		Knee aspirate (1)	Recurrent bilateral knee septic arthritis. Not treated. Treatment with FCZ was recommended by Clinical Microbiologist but declined. No further follow up.
		Breast capsule biopsy (1)	Infected implant, removed. Rx FCZ.
<i>Candida tropicalis</i>	3	Blood (1)	Intra-abdominal sepsis, IHD, patient died.
		CAPD (2)	ESRF on CAPD.
<i>Cryptococcus neoformans</i>	3	Blood & CSF(1)	HIV+
		CSF (1)	Newly diagnosed HIV+. Crypto LA >10,000. PCP pneumonia. Deceased.
		Shoulder synovial fluid (1)	DE+. CLL previously grown Feb 2009. Also isolated from face biopsy. CSF sterile.
<i>Trichosporon inkin</i>	1	CAPD	ESRF on CAPD.
<i>Pneumocystis jiroveci (carinii)</i>	6	BW/BAL (2)	BMT (22 months) just started chemotherapy (1), HIV+, pneumonitis (1).
		Sputum/Induced sputum (4)	Ca lung (1), HIV+, low CD4 count, fever (1), atypical pneumonia (1), methotrexate induced pneumonia & ongoing fevers (1).
Aerobic Actinomycetes			
<i>Nocardia asteroides complex</i>	3	BW (1)	Post lung transplant.
		Sputum (2)	NR on Roxithromycin (1), NR (1).
<i>Nocardia nova</i>	4	Sputum (2)	Bronchiectasis (1), NR (1).
		Calf (1)	Calf abscess.
		Aspirate occipital region (1)	Infected wound in skull with abscess formation.
<i>Nocardia species</i>	1	Blood (1)	Patient deceased.
<i>Rhodococcus equi</i>	1	Pleural aspirate & BW	CLL, pneumonia with pleural effusion. Rx Vancomycin & Rifampicin.

KEY:

AC	Ante-cubital	FCZ	Fluconazole
AmB	Amphotericin B	GNB	Gram negative bacilli
ALL	Acute lymphoblastic leukaemia	HIV	Human immunodeficiency virus
AML	Acute myeloid leukaemia	ICU	Intensive care unit
BAL	Bronchoalveolar lavage	IHD	Ischaemic heart disease
BMT	Bone marrow transplant	ITR	Itraconazole
BW	Bronchial washing	LA	Latex agglutination
Ca	Carcinoma	LAmB	Liposomal amphotericin B
CAPD	Continuous ambulatory peritoneal dialysis	LLL	Left lower lobe
CAS	Caspofungin	NR	Clinical data not received
CLL	Chronic lymphoblastic leukaemia	PCP	<i>Pneumocystis pneumonia</i>
CSF	Cerebrospinal fluid	PICC	Peripherally-inserted central catheter
CVL	Central venous line	Rx	Treatment
CT	Computerised tomography	SLE	Systemic lupus erythematosus
DE	Direct examination	Tb	Tuberculosis
ECMO	Extracorporeal membrane oxygenation	TKJR	Total knee joint replacement
ESRF	End stage renal failure	TPN	Total parenteral nutrition
EVD	Extra-ventricular drain	VOR	Voriconazole
		VP	Ventricular-peritoneal

Collated by Karen Rogers, Mycology Reference Laboratory,
Microbiology Department, LabPlus, Auckland City Hospital.