

Table S1 Single case of IFDs reported using mNGS

Year	Species	Samples Types	mNGS platform	Traditional methods	Results	No. of reads, median	Most common co-infecting pathogens	Ref.
2020	<i>Pneumocystis jirovecii</i>	BALF	n/a	Blood and sputum culture, nasopharyngeal aspirate respiratory virus antigen and PCR detection	Only mNGS was positive	1,007	None	(40)
2020	<i>Pneumocystis jirovecii</i>	BALF	BGISEQ-50	Smear, culture, GM test, G test	Only mNGS was positive	66	<i>Aspergillus fumigatus</i> , <i>Rhizopus oryzae</i>	(41)
2020	<i>Pneumocystis jirovecii</i>	BALF	MGISEq 2000	Microscopy of stained sputum, BALF smear specimens, various antibody and culture	The mNGS and Gomori methenamine-silver staining of the lung biopsy were positive	1,665,693	None	(42)
2019	<i>Cryptococcus neoformans</i>	Biopsy of the rib	n/a	G test and GM test, T-SPOT, HIV test, culture, Gram staining and acid-fast staining smear, CrAg detection, pathology with staining	CrAg detection and pathology were conducted after the positive mNGS results	47	None	(55)
2020	<i>Histoplasma capsulatum</i>	Epiglottis tissues, BALF	n/a	Culture, microscopy, serology tests for HIV and <i>Mycobacterium tuberculosis</i> , T-SPOT.TB, Xpert MTB/RIF assay	Only mNGS was positive	n/a	None	(62)
2021	<i>Aspergillus fumigatus</i>	Serum	n/a	MRI, blood culture, CT, serum GM, CrAg detection	m NGS was the first positive	n/a	None	(70)
2021	<i>Aspergillus flavus</i>	Blood	Nextseq550 platform	Culture, histopathology	mNGS and culture were positive	n/a	n/a	(71)
2021	<i>Candida tropicalis</i>	Liver puncture	n/a	G test, culture, histopathology, calcofluor white staining	G test, calcofluor white staining and mNGS were positive	50	None	(73)

IFDs, invasive fungal diseases; n/a, not available; BALF, bronchoalveolar lavage fluid; CrAg, cryptococcal-antigen; G, 1,3-beta-D-glucan; GM, galactomannan.