

Fig. S1. Flowchart of the study population. aPopulation including M. tuberculosis, M. mariunm, M. gordonae, and M. szuglai. bPopulation including M. chelonae, M. abscessus, M. neoaurum, M. immunogenum, M. haemophilum, and M. intracellulare. NTM, nontuberculous mycobacterium; RD1, regions of difference 1.

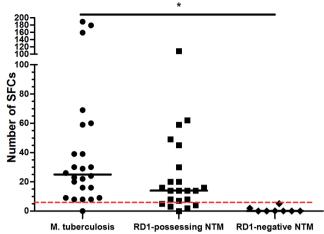


Fig. S2. Spot forming cell (SFC) levels of different subgroups of  $\textbf{cutaneous\,mycobacterial\,infection\,cases\,at\,T0.} \, \textbf{Each\,dot\,represents\,the}$ SFC of one participant. Black bars indicate median value. The red dashed line indicates the traditional cutoff value of T-SPOT.TB test. \*p < 0.05.

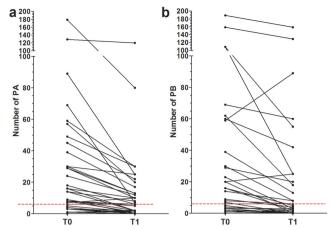


Fig. S3. Changes in Panel A minus Nil Control (PA) and Panel B minus Nil Control (PB) between T0 and T1. Each dot represents spot forming cell (SFC) of one participant at the corresponding time point. The  $\ensuremath{\mathsf{red}}$  dashed line indicates the traditional cutoff value of T-SPOT.TB. T0: before treatment; T1: after six months of antibiotic therapy.

Table SI. Basic characteristics of the 64 patients with cutaneous infectious disease in the study

Characteristics	Total ( <i>n</i> = 64)	Cutaneous infection with RD1- possessing mycobacterium* (n=46)	Cutaneous infection with RD1- negative NTM and fungus* (n = 18)		
Age, years, mean±SD	55.1±6.5	55.3±13.6	54.2±16.6		
Median (IQR)	57.5 (46-65.75)	59 (46-66.3)	56 (46-66.5)		
Sex (male), n (%)	29 (45.3)	21 (45.7)	8 (44.4)		
Female	35 (54.7)	25 (54.3)	10 (55.6)		
Underlying conditions, n (%)	15 (23.4)	10 (21.7)	5 (27.8)		
Diabetes	4 (6.3)	2 (4.3)	2 (11.1)		
Chronic renal failure	1 (1.6)	1 (2.2)	0 (0)		
Moderate or severe anaemia	2 (3.1)	2 (4.3)	0 (0)		
Thyroid disease	1 (1.6)	1 (2.2)	0 (0)		
Traumatic deformity	2 (3.1)	1 (2.2)	1 (5.6)		
Leucopenia	1 (1.6)	0 (0)	1 (5.6)		
Immunosuppressive therapy	4 (7.8)	3 (6.5)	2 (11.1)		
History of skin trauma, n (%)	16 (25.0)	10 (21.7)	6 (33.3)		
HIV infection, n (%)	0 (0)	0 (0)	0 (0)		

<sup>\*</sup>No significant difference was observed for age, sex, underlying conditions, trauma history and HIV status between the two groups. NTM: nontuberculous mycobacterium; RD1: regions of difference 1.

Table SII. Pathogen and T-SPOT.TB test results of the 64 patients with cutaneous infectious disease at  ${\bf 70}$ 

Pathogen	n	T-SPOT.TB positive n (%)
RD1-possessing mycobacteria	46	40 (87.0)
M. tuberculosis	24	23 (95.8)
NTM	22	17 (72.7)
M. marinum	20	15 (75)
M. szulgai	1	0 (0)
M. gordonae	1	1 (100)
RD1-negative mycobacteria	8	0 (0)
M. chelonae	3	0 (0)
M. abscessus	1	0 (0)
M. neoaurum	1	0 (0)
M. immunogenum	1	0 (0)
M. haemophilum	1	0 (0)
M. intracellulare	1	0 (0)
Fungus	10	0 (0)
Sporothrix schenckii	5	0 (0)
Trichophyton rubrum	2	0 (0)
Dematiaceous fungi	2	0 (0)
Cladosporium carrionii	1	0 (0)

Table SIII. Positive rates and median spot forming cells of T-SPOT.TB test in the 42 patients with cutaneous RD1-possessing mycobacterial infections at T0 and T1

		Positive rate (%)			SFCs (IQR)		
Groups	n	T0	T1	<i>p</i> -value	T0	T1	<i>p</i> -value
Cutaneous tuberculosis Cutaneous infection of RD1-possessing NTM	22 20	95.5 75.0	59.1 45.0	0.008 0.031	26.5 (9.0-59.3) 14.0 (5.5-41.3)	11.0 (3.8-46.5) 5.5 (0.3-21.5)	
Cutaneous infection of RD1-possessing mycobacteria	42	85.7	52.4	0.000	18.0 (8.0-46.0)	7.5 (1.3-25.0)	0.000

 $T0: before \ treatment; T1: \ after \ six\ months \ of \ antibiotic \ therapy; \ SFCs: \ spot forming \ cells; \ NTM: \ nontuber \ culous \ my \ cobacterium.$