

Appendix Table A. Best practices antimicrobial treatment among systemic anthrax cases

Case number (reference)	Year	Location	Age (years)	Sex	Anthrax type	Meningitis	Ciprofloxacin, levofloxacin, or moxifloxacin	Meropenem, imipenem, doripenem	Penicillin, ampicillin or amoxicillin	Vancomycin	Clindamycin	Chloramphenicol	Doxycycline	Linezolid	Rifampin	Total number Best Practices antimicrobials received during treatment	Overlap of Best Practices bactericidal and protein synthesis inhibitor	Parental antimicrobial duration (days)	Died
1 [14]	1945	United Kingdom	.	M	Cutaneous	.	.	.	Yes	.	.	.	.	.	.	1	No	5	No
2 [15]	2013	Turkey	60	M	Cutaneous	.	Yes	.	Yes	.	.	.	.	.	.	2	No	.	No
3 [16]	2002	Turkey	42	M	Other	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
4 [17]	1960	United States	49	M	Inhalation	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
5 [4, 17, 18]	1960	United States	33	M	Inhalation	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
6 [19]	1995	Iran	2	F	Gastrointestinal	No	.	.	Yes	.	.	Yes	.	.	.	2	Yes	.	Yes
7 [20]	2008	United Kingdom	.	M	Inhalation	.	Yes	.	.	.	Yes	.	.	.	Yes	3	Yes	.	Yes
8 [21]	2014	United Kingdom	60	M	Injection	.	Yes	.	Yes	.	Yes	.	.	.	.	3	Yes	.	No
9 [22]	2006	Iran	12	M	Gastrointestinal	No	.	.	Yes	.	.	.	.	.	.	1	No	14	No
10 [22]	2006	Iran	14	F	Gastrointestinal	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
11 [22]	2006	Iran	34	F	Other	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
12 [23]	2002	United States	94	F	Inhalation	No	Yes	.	Yes	Yes	Yes	.	.	.	.	4	Yes	.	Yes
13 [24]	1992	India	30	M	Other	Confirmed	.	.	Yes	.	.	Yes	.	.	.	2	Yes	.	Yes
14 [25]	1985	India	40	M	Gastrointestinal	Probable	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
15 [8]	2007	India	70	M	Other	Confirmed	Yes	.	.	.	.	.	.	.	.	1	No	0	No
16 [26]	1961	United States	28	M	Inhalation	Probable	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
17 [26]	1961	United States	50	F	Inhalation	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
18 [27]	2001	Turkey	1.50	F	Cutaneous	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
19 [27]	2001	Turkey	3	F	Cutaneous	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
20 [27]	2001	Turkey	25	F	Cutaneous	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
21 [27]	2001	Turkey	27	F	Cutaneous	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
22 [28]	2009	France	56	M	Cutaneous	.	Yes	.	Yes	.	.	.	.	.	.	3	No	14	No
23 [29]	1952	India	.	M	Cutaneous	Probable	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
24 [29]	1952	India	35	M	Cutaneous	.	.	.	Yes	.	.	.	.	.	.	1	No	7	No
25 [29]	1952	India	12	F	Cutaneous	.	.	.	.	.	.	Yes	.	.	.	1	No	.	No
26 [29]	1952	India	10	M	Cutaneous	.	.	.	.	.	.	Yes	.	.	.	1	No	.	No
27 [29]	1952	India	0.83	NR	Cutaneous	.	.	.	.	.	.	Yes	.	.	.	1	No	.	No
28 [29]	1952	India	55	M	Cutaneous	.	.	.	.	.	.	Yes	.	.	.	1	No	.	No
29 [30]	2012	Turkey	44	M	Cutaneous	Probable	.	.	Yes	.	.	.	.	.	.	1	No	5	No
30 [30]	2012	Turkey	30	M	Cutaneous	Probable	.	.	Yes	.	.	.	.	.	.	1	No	7	No
31 [31]	1986	Turkey	26	F	Gastrointestinal	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
32 [31]	1986	Turkey	40	F	Gastrointestinal	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
33 [31]	1986	Turkey	46	F	Gastrointestinal	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
34 [31]	1986	Turkey	18	F	Gastrointestinal	Probable	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
35 [31]	1986	Turkey	35	F	Multiple	Probable	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
36 [32]	1970	Iran	20	F	Gastrointestinal	No	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
37 [33]	1999	Turkey	16	M	Cutaneous	Probable	Yes	.	Yes	.	.	.	.	.	.	2	No	10	No
38 [34]	2002	United States	0.58	M	Cutaneous	.	Yes	.	Yes	.	Yes	.	.	.	.	4	Yes	3	No
39 [35]	1999	Spain	49	M	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
40 [36]	1994	India	50-60	M	Other	Probable	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
41 [36]	1994	India	50-60	M	Other	Probable	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
42 [36]	1994	India	30	NR	Other	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
43 [36]	1994	India	50-60	M	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
44 [36]	1994	India	50-60	M	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
45 [37]	2006	Lebanon	25	M	Multiple	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
46 [38]	1951	United States	34	F	Cutaneous	Probable	.	.	.	.	.	Yes	.	.	.	1	No	.	No
47 [39]	2012	Germany	.	NR	Injection	No	Yes	.	Yes	.	Yes	.	.	.	.	3	Yes	.	No
48 [40]	1952	United States	61	M	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
49 [41]	1976	Iran	20	F	Gastrointestinal	.	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
50 [42]	2010	Iran	67	M	Gastrointestinal	.	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
51 [42]	2010	Iran	13	F	Gastrointestinal	.	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
52 [43]	1980	Zimbabwe	25	M	Gastrointestinal	.	.	.	Yes	.	.	Yes	.	.	.	2	Yes	.	No
53 [44-49]	2001	United States	63	M	Inhalation	Confirmed	Yes	.	Yes	Yes	Yes	.	Yes	.	.	6	Yes	.	Yes
54 [47, 50, 51]	2001	United States	61	F	Inhalation	No	Yes	.	.	.	Yes	.	.	.	Yes	4	Yes	.	Yes
55 [45-47]	2001	United States	73	M	Inhalation	.	Yes	.	.	.	.	.	.	.	.	1	No	.	No
56 [46, 47, 52-54]	2001	United States	56	M	Inhalation	.	Yes	.	.	.	Yes	.	.	.	Yes	3	Yes	.	No
57 [47, 52, 53]	2001	United States	56	M	Inhalation	No	Yes	.	.	.	Yes	.	.	.	Yes	3	Yes	.	No
58 [47, 55]	2001	United States	55	M	Inhalation	.	Yes	.	.	.	.	.	.	.	.	1	No	.	Yes
59 [47, 55, 56]	2001	United States	47	M	Inhalation	.	Yes	.	Yes	.	.	.	.	.	Yes	3	Yes	.	Yes
60 [47, 51]	2001	United States	59	M	Inhalation	Probable	Yes	.	Yes	Yes	.	.	.	.	Yes	4	Yes	.	No
61 [47]	2001	United States	56	F	Inhalation	.	Yes	.	.	Yes	.	.	.	.	Yes	4	Yes	.	No
62 [47, 51]	2001	United States	43	F	Inhalation	.	Yes	.	.	.	Yes	.	Yes	.	.	4	No	.	No
63 [57]	2003	Turkey	29	F	Cutaneous	.	.	.	Yes	.	.	.	.	.	.	1	No	7	No
64 [57]	2003	Turkey	33	F	Cutaneous	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
65 [58]	1955	United States	46	M	Inhalation	Probable	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
66 [59]	2003	Lebanon	7	M	Gastrointestinal	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
67 [59]	2003	Lebanon	17	M	Gastrointestinal	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
68 [59]	2003	Lebanon	26	M	Gastrointestinal	.	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
69 [59]	2003	Lebanon	15	M	Multiple	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
70 [59]	2003	Lebanon	24	M	Multiple	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
71 [60]	2002	India	35	M	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
72 [60]	2002	India	38	M	Other	Probable	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes

73 [60]	2002	India	40	M	Other	Probable	.	.	Yes	.	.	Yes	.	.	.	2	Yes	.	Yes
74 [60]	2002	India	65	M	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
75 [61]	2001	Iran	20	F	Cutaneous	Probable	.	.	Yes	.	.	.	.	.	.	1	No	14	No
76 [62]	1989	India	25	M	Other	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	No
77 [63]	2010	Iran	4	M	Gastrointestinal	Probable	.	.	Yes	.	Yes	.	.	.	.	2	No	.	Yes
78 [63]	2010	Iran	33	M	Other	Confirmed	.	.	Yes	.	Yes	.	.	.	.	2	No	.	Yes
79 [64]	2001	South Korea	53	M	Cutaneous	Probable	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
80 [65]	2010	United States	24	F	Gastrointestinal	.	Yes	Yes	Yes	Yes	Yes	.	Yes	Yes	.	7	Yes	.	No
81 [66]	2011	United Kingdom	44	M	Injection	.	Yes	.	Yes	.	Yes	.	.	.	.	3	Yes	.	No
82 [67]	1964	Iran	60	F	Multiple	No	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
83 [67]	1964	Iran	15	M	Cutaneous	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
84 [67]	1964	Iran	16	M	Cutaneous	.	.	.	Yes	.	.	.	.	.	.	1	No	22	No
85 [67]	1964	Iran	30	F	Cutaneous	No	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
86 [67]	1964	Iran	48	M	Cutaneous	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
87 [4, 67]	1964	Iran	30	M	Inhalation	Probable	.	.	Yes	.	.	Yes	.	.	.	2	Yes	.	Yes
88 [68]	1981	India	63	M	Other	Confirmed	.	.	Yes	.	.	Yes	.	.	.	2	Yes	.	Yes
89 [69]	1997	Hong Kong	13	M	Gastrointestinal	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
90 [4, 70]	1969	United States	46	M	Inhalation	Confirmed	.	.	Yes	.	.	Yes	.	.	.	2	Yes	.	Yes
91 [71]	2006	Turkey	49	F	Other	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
92 [72]	1981	Zimbabwe	56	F	Cutaneous	Confirmed	.	.	Yes	.	.	Yes	.	.	.	2	Yes	.	Yes
93 [72]	1981	Zimbabwe	9	F	Cutaneous	Confirmed	.	.	Yes	.	.	Yes	.	.	.	2	Yes	.	Yes
94 [72]	1981	Zimbabwe	57	M	Cutaneous	Confirmed	.	.	Yes	.	.	Yes	.	.	.	2	Yes	.	Yes
95 [72]	1981	Zimbabwe	58	M	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
96 [73]	2013	Iran	26	F	Gastrointestinal	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
97 [73]	2013	Iran	23	M	Multiple	.	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
98 [74]	1979	Greece	13	F	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
99 [74]	1979	Greece	10	M	Cutaneous	.	.	.	Yes	.	.	.	.	.	.	1	No	5	No
100 [74]	1979	Greece	11	M	Cutaneous	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
101 [74]	1979	Greece	12	F	Cutaneous	.	.	.	Yes	.	.	.	.	.	.	1	No	.	No
102 [75]	2002	Iran	15	M	Gastrointestinal	.	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
103 [76]	1974	United Kingdom	68	M	Cutaneous	Probable	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
104 [77]	2009	Turkey	59	M	Multiple	.	Yes	.	Yes	.	.	.	.	.	.	2	No	.	Yes
105 [78]	1977	Bangladesh	17	M	Gastrointestinal	Probable	.	.	Yes	.	.	Yes	.	.	.	3	Yes	26	No
106 [79]	2009	India	58	M	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
107 [60, 79]	2002	India	50	M	Cutaneous	Confirmed	.	.	Yes	.	.	Yes	.	.	.	2	Yes	.	Yes
108 [60, 79]	2002	India	35	M	Other	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
109 [60, 79]	2002	India	53	M	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
110 [60, 79]	2002	India	35	M	Cutaneous	Confirmed	.	.	Yes	.	.	Yes	.	.	.	2	Yes	.	Yes
111 [60, 79]	2002	India	47	M	Other	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
112 [60, 79]	2002	India	64	M	Other	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
113 [79]	2009	India	45	M	Other	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
114 [60, 79]	2002	India	37	M	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
115 [60, 79]	2002	India	57	M	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
116 [80]	1985	Thailand	59	M	Gastrointestinal	.	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
117 [81]	2010	Turkey	43	F	Gastrointestinal	.	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
118 [82]	2000	Turkey	0.01	M	Cutaneous	No	.	.	Yes	.	.	.	.	.	.	2	No	28	No
119 [83]	2011	United Kingdom	28	F	Injection	.	Yes	.	Yes	.	Yes	.	.	.	.	3	Yes	28	No
120 [4, 18]	1960	United States	65	F	Inhalation	.	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
121 [4, 18]	1960	United States	46	M	Inhalation	Probable	.	.	Yes	.	.	.	.	.	.	1	No	.	No
122 [84]	1976	France	62	M	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
123 [85]	2011	United Kingdom	32	M	Injection	No	Yes	.	.	Yes	Yes	.	.	.	.	3	Yes	14	No
124 [86]	1975	Mexico	36	NR	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
125 [86]	1975	Mexico	14	M	Other	Confirmed	.	.	Yes	.	.	Yes	.	.	.	2	No	.	Yes
126 [87]	1953	Uganda	15	M	Gastrointestinal	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
127 [88]	2000	Norway	49	M	Injection	Confirmed	.	.	Yes	.	.	Yes	.	.	.	2	Yes	.	Yes
128 [89]	2013	Denmark	39	M	Injection	Probable	Yes	Yes	Yes	.	Yes	.	.	.	.	6	Yes	17	No
129 [89]	2013	Denmark	55	M	Multiple	.	Yes	Yes	.	.	Yes	.	.	.	.	3	Yes	.	Yes
130 [90]	1976	United Kingdom	53	M	Multiple	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
131 [91]	1947	United States	57	M	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	8	No
132 [92]	2001	Turkey	54	F	Cutaneous	.	.	.	Yes	.	.	.	.	.	.	1	No	10	No
133 [93]	2014	United States	61	M	Inhalation	.	Yes	Yes	.	Yes	Yes	.	.	.	Yes	5	Yes	25	No
134 [4, 94]	1978	United States	32	M	Inhalation	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
135 [95]	1993	Iran	6	M	Gastrointestinal	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	14	No
136 [95]	1993	Iran	2	F	Other	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
137 [96]	1972	Iran	8.5	F	Cutaneous	Confirmed	.	.	Yes	.	.	Yes	.	.	.	2	Yes	23	No
138 [97]	1968	Thailand	60	M	Gastrointestinal	.	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
139 [98]	2002	Turkey	19	M	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes
140 [99]	1973	Tanzania	12	M	Cutaneous	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	14	No
141 [100]	1998	Poland	44	F	Cutaneous	.	.	.	Yes	.	Yes	.	.	.	.	2	No	.	No
142 [101]	2014	United Kingdom	37	M	Injection	.	Yes	.	.	Yes	Yes	.	.	.	.	3	Yes	30	No
143 [4, 102]	1975	Iran	16	F	Inhalation	Probable	.	.	Yes	.	.	Yes	.	.	.	2	Yes	.	Yes
144 [103]	1974	Thailand	40	M	Gastrointestinal	Confirmed	.	.	Yes	.	.	.	.	.	.	1	No	.	Yes

145 [104]	1960	.	64	M	Cutaneous	Confirmed	.	.	Yes	.	.	Yes	.	.	.	2	Yes	.	Yes
146 [105]	2007	United States	44	M	Inhalation	No	Yes	.	Yes	.	Yes	.	.	.	.	3	Yes	.	No
147 [106]	1983	Belgium	52	M	Cutaneous	.	.	.	.	.	.	.	Yes	.	.	1	No	.	No
148 [107]	2006	Turkey	11	M	Cutaneous	Confirmed	Yes	.	.	.	.	.	.	.	.	1	No	.	Yes
149 [108]	2001	Turkey	64	M	Inhalation	Confirmed	.	.	Yes	.	.	Yes	.	.	.	2	Yes	.	Yes