Figure legends

Table 1

Table 1: Patient baseline characteristics for study stage 1 and stage 2.

Table 2

Pathogen isolates from 41 paired cough swab, sputum-induction, and BAL samples. Trial Event Number superscript *"a-f"* indicates 6 patients who contributed twice. Trial Event Number superscript "*" indicates patients who were asymptomatic

Figure 1

Participant flow diagram.

Figure 2

Objective assessment of tolerance to the sputum-induction procedure in 200 attempted procedures. Pre and post procedure measurements of FEV1% (where applicable), respiratory rate, and heart rate.

Figure 3

3a) Total pathogen yield for concurrent cough swab and sputum-induction in the total cohort (n=167) and in subgroups aged <6 years of age (n=62), and >6 years of age (n=105).

3b) Specific pathogen yields for concurrent cough swab and sputum-induction in the total cohort (n=167)

Figure 4

4a) Total pathogen yield for concurrent cough swab, sputum induction, and 1-lobe, 2-lobe and 6-lobe BAL in 41 patients.

4b) Specific pathogen yield for concurrent cough swab, sputum induction, and 1-lobe, 2-lobe and 6-lobe BAL in 41 patients.

4c) Venn diagram indicating unique and overlapping pathogen yield for sputum induction, and 1-lobe, 2-lobe and 6-lobe BAL in 41 patients.

Figure 5

2 examples of Polymicrobial DNA signatures or RISA profiles from concurrent cough swab, sputum induction and BAL samples.

5a) The sputum RISA profile is directly related to BAL and discrete from the cough swab profile.

5b) The sputum RISA profile is a combination of contributions from multiple BAL samples sites, indicating that sputum-induction can be effective in sampling from a very wide lower airway compartment.

Figure e1

CF–SpIT Research protocol for sputum-induction sampling.

Table e1

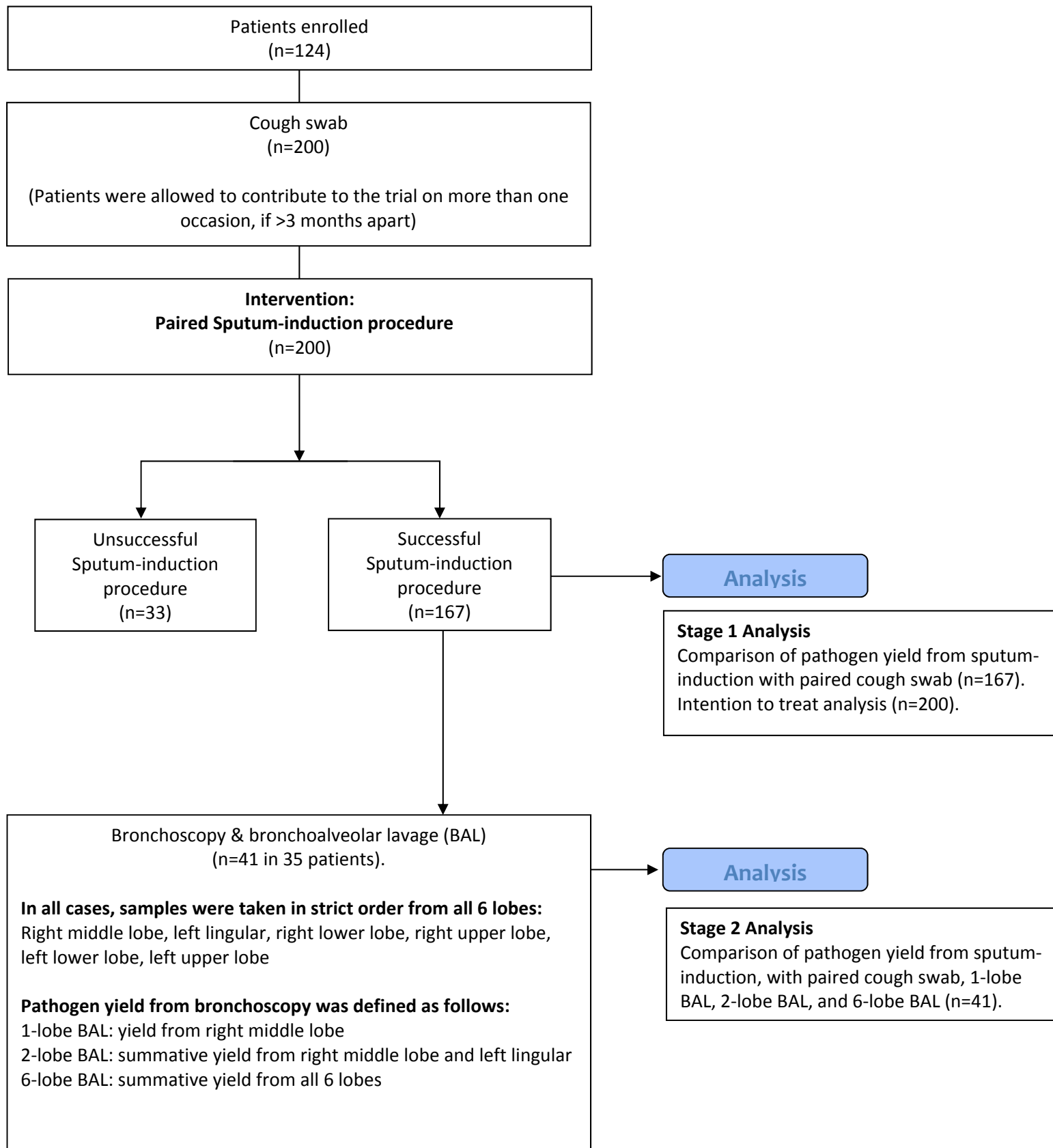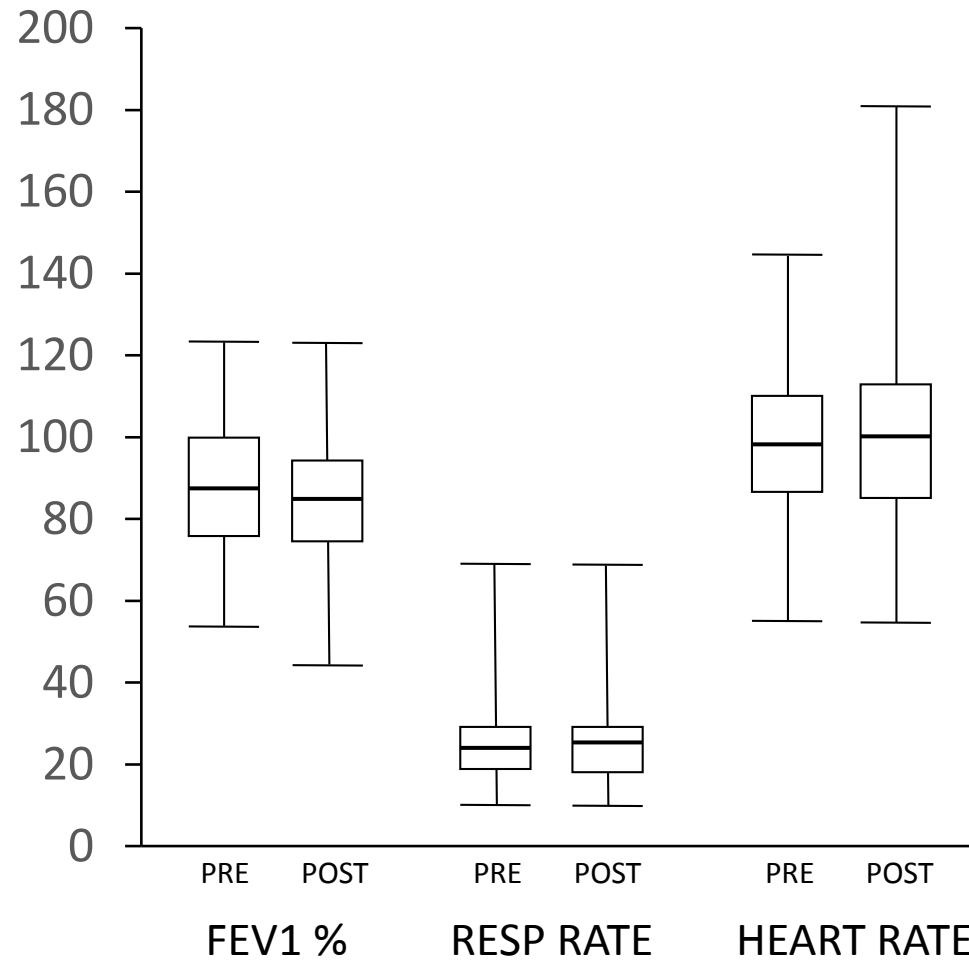Bacterial isolates from 167 paired cough swab and sputum-induction samples.
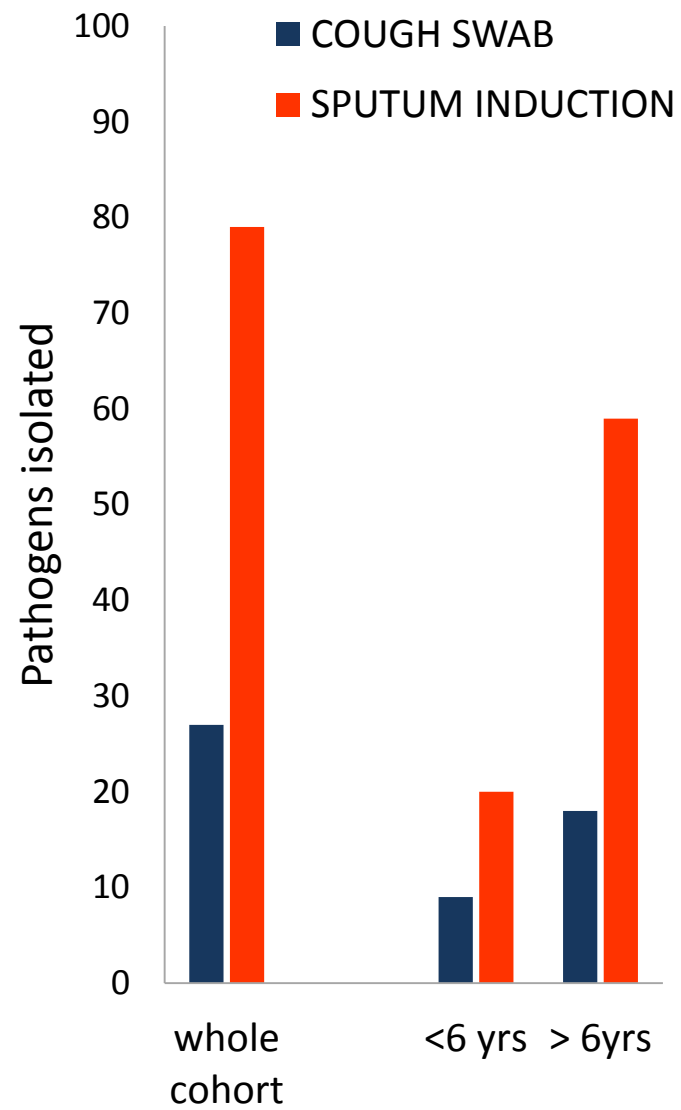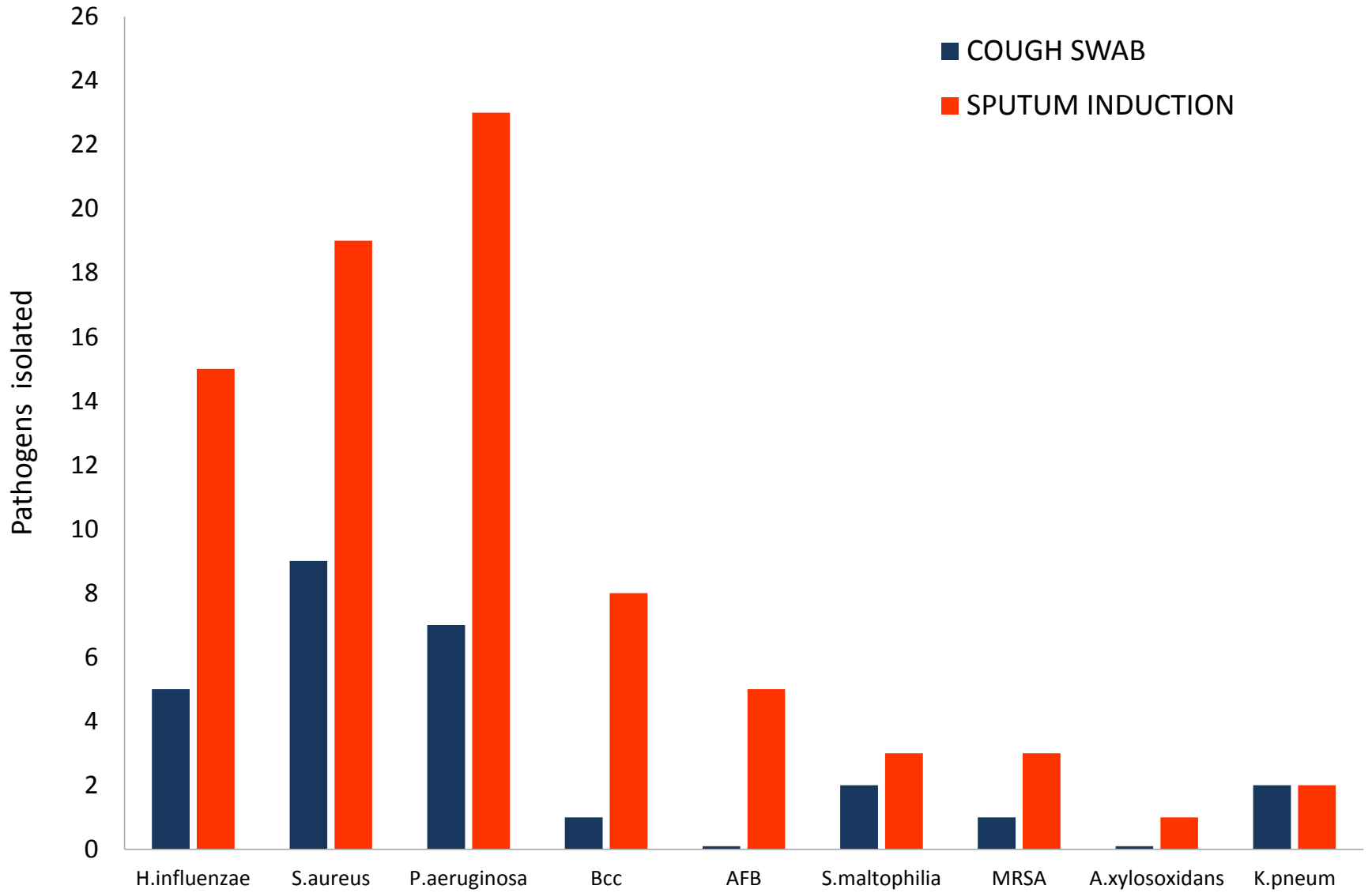
Figure 1

Figure 2

Figure 3a

Figure 3b

Figure 4a
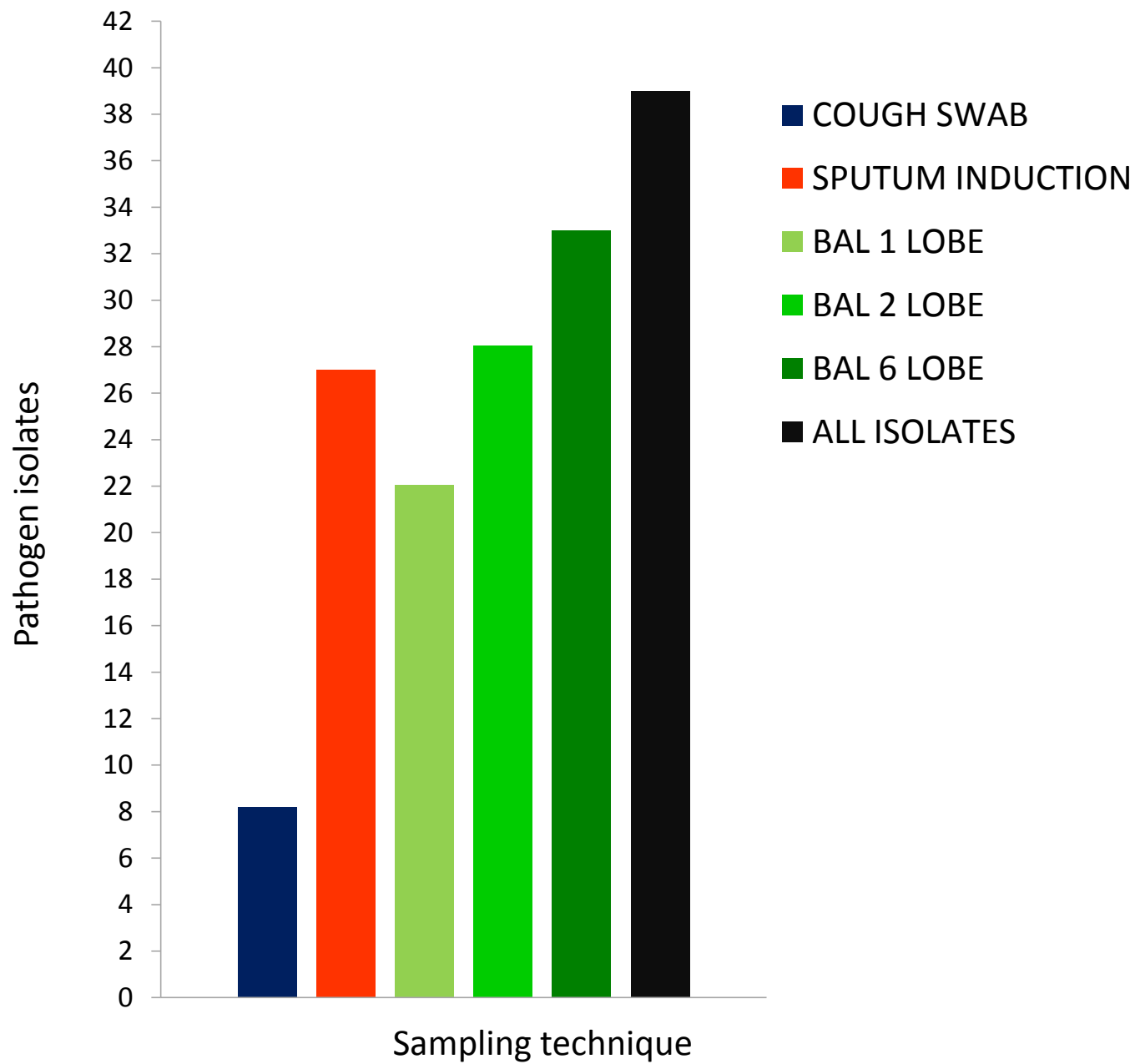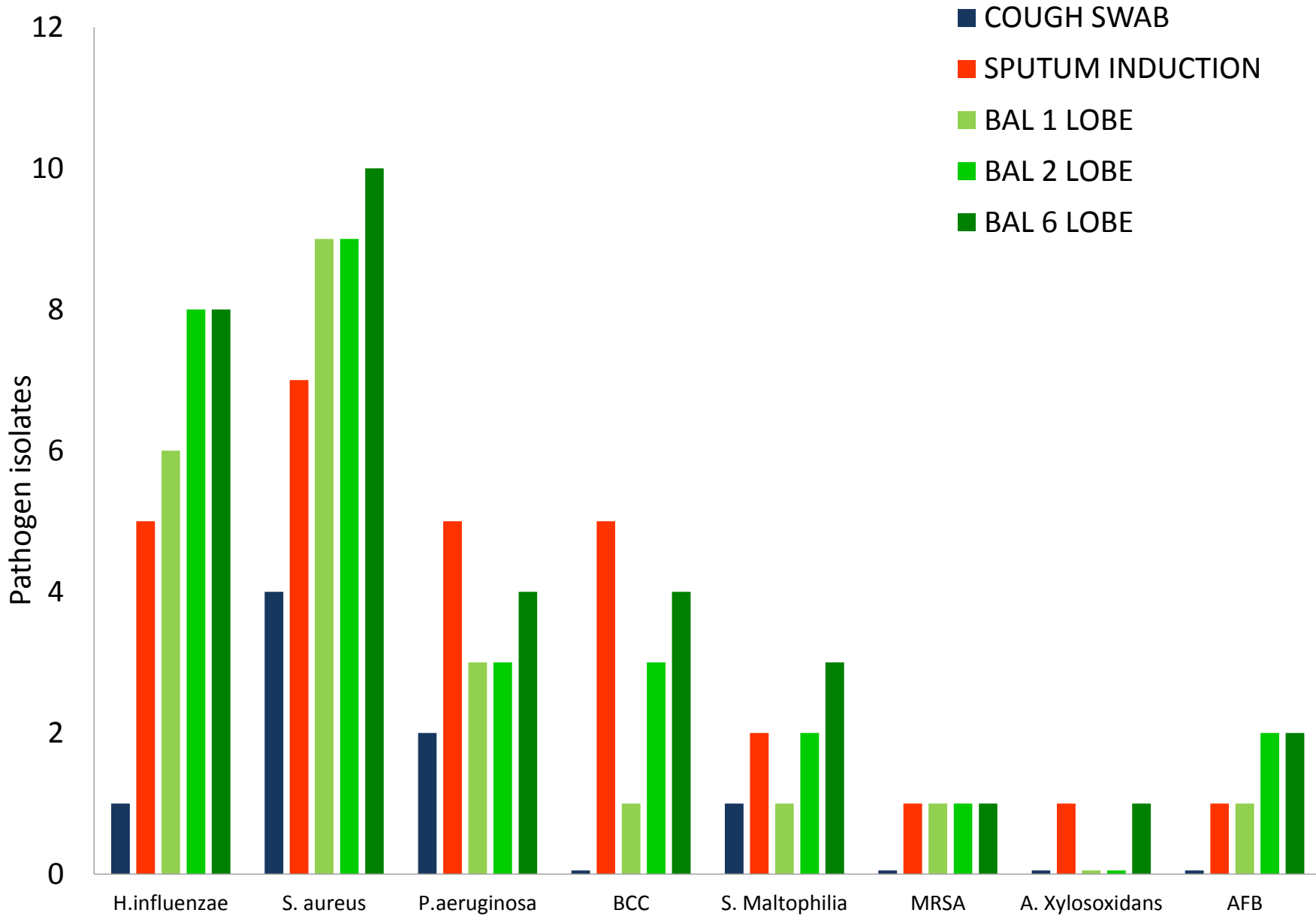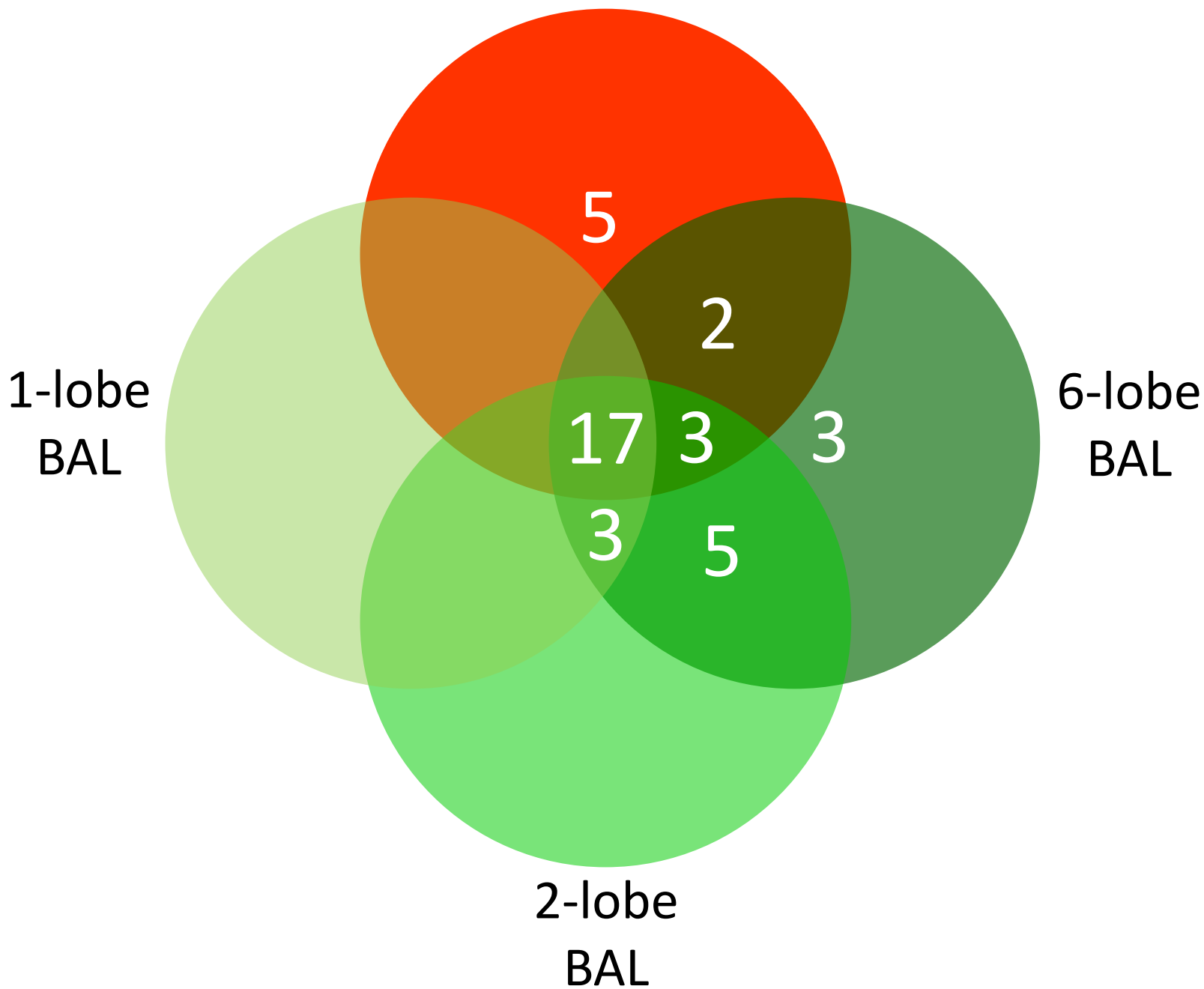
Figure 4b

Figure 4c

Sputum induction

1-lobe BAL

6-lobe BAL

2-lobe BAL

5

2

17 3 3

3 5

Figure 5