

### Supplement table 1:

Inclusion and exclusion criteria for the *B. pertussis* human challenge colonisation study

Inclusion criteria	
1	Healthy adults aged 18 to 45 years inclusive at screening
2	Fully conversant in the English language
3	Able to communicate easily by both mobile telephone and text messaging
4	Able and willing (in the investigator's opinion) to comply with all study requirements
5	Written informed consent to participate in the trial
6	Willingness to take an antibiotic regimen after inoculation with <i>B. pertussis</i> according to the study protocol
7	Agreement to be admitted to the NIHR-CRF Southampton for 17 days for phase A (from inoculation until two days after the eradication therapy is given) and for the duration necessary for phase B, depending on phase A results
8	Agree to the infection prevention rules as stated in the volunteer information sheet
9	TOPS registration completed and no conflict found

NIHR-CRF: National Health Institute for Health Research-Clinical Research Facility, TOPS: The Over-volunteering Prevention System

Exclusion criteria	
1.	Individuals who have inviolable commitments within 3 months of discharge from the inpatient phase of the study to make contact with: a. unimmunised or partially immunised children and infants aged < 1 year b. pregnant women >32 weeks who have not received pertussis vaccination at least a v contact
2.	Individuals who have household contacts working with a. unimmunised or partially immunised children and infants aged < 1 year b. pregnant women >32 weeks who have not received pertussis vaccination at least a v contact
3.	Phase A only: Volunteers will be excluded from this study if they have evidence of recent <i>B. pertussis</i> infection, as determined by anti-PT IgG ELISA (>20 IU/mL)
4.	<i>B. pertussis</i> detected on nasopharyngeal swab taken before the challenge
5.	Individuals who have a signs of a current infection at the time of inoculation with <i>B. pertussis</i>
6.	Individuals who have participated in other interventional clinical trials in the last 12 weeks
7.	Individuals who have a history of receiving <i>B. pertussis</i> vaccination in the last 5 years
8.	Individuals who have a history of never being vaccinated against <i>B. pertussis</i>
9.	Current smokers defined as having had a cigarette/cigar in the last week.
10.	Use of systemic antibiotics within 30 days of or during the challenge
11.	Any confirmed or suspected immunosuppressive or immune-deficient state, including HIV infection; asplenia; recurrent, severe infections and chronic (more than 14 days) immunosuppressant medication within the past 6 months (topical steroids are allowed)
12.	Use of immunoglobulins or blood products within 3 months prior to enrolment
13.	History of allergic disease or reactions likely to be exacerbated by any component of the inoculum
14.	Contraindications to the use of azithromycin or macrolides
15.	Pregnancy, lactation or intention to become pregnant during the study

16.	Any clinically significant abnormal finding on biochemistry, haematology, toxicology or serological blood tests, urinalysis or clinical examination - in the event of abnormal test results, confirmatory repeat tests will be requested
17.	Any other significant disease, disorder, or finding which may significantly increase the risk to the volunteer because of participation in the study, affect the ability of the volunteer to participate in the study or impair interpretation of the study data, for example recent surgery to the nasopharynx

PT: pertussis toxin, IgG: immunoglobulin-G, ELISA: enzyme-linked immunosorbent assay, IU: international units

*Effective contraception for female participants*

Female participants are required to use an effective form of contraception during this study.

Acceptable forms of contraception include:

- Established use of oral, injected or implanted hormonal methods of contraception
- Placement of an intrauterine device or intrauterine system
- Total abdominal hysterectomy
- Barrier methods of contraception (condom or occlusive cap with spermicide)
- Male sterilisation if the vasectomised partner is the sole partner for the subject
- True abstinence when this is in line with the preferred and usual lifestyle of the subject