## Supplemental materials for:

Winter JR, Charlton J, Ashworth M, Bunce C, Gulliford MC. Peritonsillar abscess and antibiotic prescribing for respiratory infection in primary care: a population-based cohort study and decision-analytic model. Ann Fam Med. 2020;18(5):390-396.

## Supplemental Figure 1: The incidence of first cases of peritonsillar abscess reported from 2002-2017, stratified by gender.

Age-standardised PTA incidence (top) by year from 2002-2017, and age-specific PTA incidence for five-year age groups (bottom) for the period $2002-2017$.


Supplemental Figure 2: Consultation rate for self-limiting respiratory tract infections (RTI) per 1,000 patient years and proportion (\%) of RTI consultations with antibiotics (AB) prescribed 2002 to 2017.


Supplemental Figure 3: Age- and gender-specific monthly probability of PTA in patients who consulted for RTI, with and without antibiotic prescription


Top: PTA cases reported in CPRD or HES. Bottom: PTA cases reported in HES

Supplemental Table 1: Probability of peritonsillar abscess in 30 days following a consultation for RTI, and estimated number of antibiotic prescriptions required to prevent one case of peritonsillar abscess by age group and gender. Bracketed figures are $95 \%$ uncertainty intervals.

| Age group (years) | MALE |  | FEMALE |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Probability of PTA (x100,000) |  | Probability of PTA ( $\times 100,000$ ) |  |
|  | Without antibiotic | With antibiotic | Without antibiotic | With antibiotic |
| 0 to 4 | $\begin{gathered} 1.1 \\ (0.6 \text { to } 1.7) \end{gathered}$ | $\begin{gathered} 0.9 \\ (0.4 \text { to } 1.7) \end{gathered}$ | $\begin{gathered} 0.9 \\ (0.4 \text { to } 1.4) \end{gathered}$ | $\begin{gathered} 0.8 \\ (0.3 \text { to } 1.5) \end{gathered}$ |
| 5 to 14 | $\begin{gathered} 14.3 \\ (12.2 \text { to } 16.6) \end{gathered}$ | $\begin{gathered} 10.3 \\ (8.5 \text { to } 12.3) \end{gathered}$ | $\begin{gathered} 16.4 \\ (14.1 \text { to } 18.8) \end{gathered}$ | $\begin{gathered} 10.8 \\ (8.9 \text { to } 12.9) \end{gathered}$ |
| 15 to 24 | $\begin{gathered} 177.1 \\ (165.3 \text { to } 189.6) \end{gathered}$ | $\begin{gathered} 87.8 \\ (80.5 \text { to } 95.7) \end{gathered}$ | $\begin{gathered} 97.4 \\ \text { (90.9 to 104.4) } \end{gathered}$ | $\begin{gathered} 48.1 \\ (44.0 \text { to } 52.5) \end{gathered}$ |
| 25 to 34 | $\begin{gathered} 171.7 \\ (158.3 \text { to } 185.8) \end{gathered}$ | $\begin{gathered} 63.6 \\ (57.1 \text { to } 70.6) \end{gathered}$ | $\begin{gathered} 79.5 \\ (73.4 \text { to } 85.7) \end{gathered}$ | $\begin{gathered} 29.0 \\ (26.0 \text { to } 32.2) \end{gathered}$ |
| 35 to 44 | $\begin{gathered} 141.2 \\ (130.2 \text { to } 152.7) \end{gathered}$ | $\begin{gathered} 53.3 \\ (47.7 \text { to } 59.0) \end{gathered}$ | $\begin{gathered} 62.3 \\ (57.3 \text { to } 67.7) \end{gathered}$ | $\begin{gathered} 21.2 \\ (18.9 \text { to } 23.6) \end{gathered}$ |
| 45 to 54 | $\begin{gathered} 65.0 \\ (57.8 \text { to } 72.9) \end{gathered}$ | $\begin{gathered} 17.4 \\ (14.3 \text { to } 20.9) \end{gathered}$ | $\begin{gathered} 27.6 \\ (24.3 \text { to } 31.2) \end{gathered}$ | $\begin{gathered} 6.8 \\ (5.5 \text { to } 8.2) \end{gathered}$ |
| 55 to 64 | $\begin{gathered} 25.8 \\ (21.4 \text { to } 30.6) \end{gathered}$ | $\begin{gathered} 10.1 \\ (7.8 \text { to } 12.6) \end{gathered}$ | $\begin{gathered} 12.4 \\ (10.2 \text { to } 14.9) \end{gathered}$ | $\begin{gathered} 4.4 \\ (3.4 \text { to } 5.6) \end{gathered}$ |
| 65 to 74 | $\begin{gathered} 12.7 \\ (9.7 \text { to } 16.1) \end{gathered}$ | $\begin{gathered} 4.3 \\ (2.9 \text { to } 6.1) \end{gathered}$ | $\begin{gathered} 7.7 \\ (5.8 \text { to } 9.8) \end{gathered}$ | $\begin{gathered} 2.6 \\ (1.7 \text { to } 3.6) \end{gathered}$ |
| 75 to 84 | $\begin{gathered} 8.3 \\ (5.3 \text { to 12.0) } \end{gathered}$ | $\begin{gathered} 3.1 \\ (1.6 \text { to } 5.1) \end{gathered}$ | $\begin{gathered} 3.7 \\ (2.2 \text { to } 5.6) \end{gathered}$ | $\begin{gathered} 1.5 \\ (0.7 \text { to } 2.5) \end{gathered}$ |
| 85+ | $\begin{gathered} 4.1 \\ (1.4 \text { to } 8.9) \end{gathered}$ | $\begin{gathered} 0.8 \\ (0.1 \text { to } 2.6) \end{gathered}$ | $\begin{gathered} 4.1 \\ (1.6 \text { to } 7.9) \end{gathered}$ | $\begin{gathered} 1.0 \\ (0.1 \text { to } 2.8) \end{gathered}$ |

