### Supplementary material I Full search terms

<table>
<thead>
<tr>
<th>#</th>
<th>Web of Science search terms</th>
<th>Results</th>
</tr>
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</table>
| #11 | #9 NOT #10  
*Timespan=1993-2018 Search language=English*                                          | 985     |
| #10 | TS = (vaccin*)  
*Timespan=1993-2018 Search language=English*                                           | 341,458 |
| #9  | #8 NOT #6  
*Timespan=1993-2018 Search language=English*                                            | 999     |
| #8  | #5 AND #4 AND #3 AND #1  
*Timespan=1993-2018 Search language=English*                                           | 1,370   |
| #7  | TS = (access OR care or path)  
*Timespan=1993-2018 Search language=English*                                           | 2,870,066 |
| #6  | TS = (smok* OR environ* OR viral OR virus)  
*Timespan=1993-2018 Search language=English*                                           | 5,011,281 |
| #5  | TS = (exacer* OR worse*)  
*Timespan=1993-2018 Search language=English*                                           | 323,336 |
| #4  | TS = (model OR path* OR provi* OR access OR integr*)  
*Timespan=1993-2018 Search language=English*                                           | 18,625,989 |
| #3  | TS = (re$admission OR re$admit* OR admit* OR admission OR discharge OR transfer)  
*Timespan=1993-2018 Search language=English*                                           | 2,067,948 |
| #2  | TS = (pathway OR specialist OR direct)  
*Timespan=1993-2018 Search language=English*                                           | 3,361,512 |
| #1  | TI = (COPD or COAD or (chronic obstructive airways disease) or (chronic obstructive pulmonary disease) OR (chronic bronchitis) or emphysema)  
*Timespan=1993-2018 Search language=English*                                           | 51,326  |

### EMBASE/ EBSCO search terms

<table>
<thead>
<tr>
<th>#</th>
<th>EMBASE/ EBSCO search terms</th>
<th>Results</th>
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<td>#1</td>
<td>TI ( (COPD or COAD or (chronic obstructive airways disease) or (chronic obstructive pulmonary disease) OR (chronic bronchitis) or emphysema) ) AND AB ( (re$admission OR re$admit* OR admit* OR admission OR discharge OR transfer) ) AND AB ( (model OR path* OR provi* OR access OR integr*) ) AND AB ( (exacer* OR worse*) ) NOT AB ( (smok* OR environ* OR viral OR virus) )</td>
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<td>#15</td>
<td>Search (COPD)[Title/Abstract] OR (COAD)[Title/Abstract] OR (chronic obstructive pulmonary disease)[Title/Abstract] OR (emphysema)[Title/Abstract] OR (chronic bronchitis)[Title/Abstract]</td>
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<td>#14</td>
<td>Search ((((COPD) OR (COAD) OR (chronic obstructive pulmonary disease) OR (emphysema) OR (chronic bronchitis)) AND (exacer*[Title/Abstract]) OR worse*[Title/Abstract])) AND (((model[Title/Abstract]) OR path*[Title/Abstract]) OR provi*[Title/Abstract]) OR access[Title/Abstract]) OR integr*[Title/Abstract]) AND (((resadm*[Title/Abstract]) OR adm*[Title/Abstract]) OR discharge[Title/Abstract]) OR transfer[Title/Abstract])) NOT ((smok*) OR (environ*) OR (viral) OR (virus) OR (vacc*))</td>
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<td>#13</td>
<td>Search ((((COPD) OR (COAD) OR (chronic obstructive pulmonary disease) OR (emphysema)) AND (exacer*[Title/Abstract]) OR worse*[Title/Abstract])) AND (((model[Title/Abstract]) OR path*[Title/Abstract]) OR provi*[Title/Abstract]) OR access[Title/Abstract]) OR integr*[Title/Abstract]) AND (((resadm*[Title/Abstract]) OR adm*[Title/Abstract]) OR discharge[Title/Abstract]) OR transfer[Title/Abstract])</td>
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<td>1</td>
<td>Search ((((((COPD[Title] OR COAD[Title] OR (chronic obstructive pulmonary disease)[Title] OR (chronic bronchitis)[Title] OR emphysema)[Title])) AND ((re$admission[Title/Abstract] OR re$admit*[Title/Abstract] OR admit*[Title/Abstract] OR admission[Title/Abstract] OR discharge[Title/Abstract] OR transfer)[Title/Abstract]) AND ((model)[Title/Abstract] OR path*[Title/Abstract] OR provi*[Title/Abstract] OR access[Title/Abstract] OR integr*[Title/Abstract]) AND ((exacer*[Title/Abstract] OR worse*)[Title/Abstract]) NOT ((smok*[Title/Abstract] OR environ*[Title/Abstract] OR viral)[Title/Abstract] OR virus)[Title/Abstract])</td>
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