

Table S1: Operationalization of the PrePSS-score parameters after weighting of the parameters

| Parameter | Score |
|--|------------------|
| (1) Guideline-conform sequential pneumococcal vaccination | Range 0-3 |
| <ul style="list-style-type: none"> ▪ PCV-13 and PSV-23, correct sequence and intervals¹ ▪ PCV-13 and PSV-23, altered sequence or intervals ▪ Only PCV-13 or PSV-23 ▪ No pneumococcal vaccination | 3 2 1 0 |
| (2) Guideline-conform meningococcal vaccination | Range 0-3 |
| <ul style="list-style-type: none"> ▪ Men-ACWY and Men-B complete primary immunization² ▪ Men-ACWY and Men-B incomplete primary immunization ▪ Men-ACWY or Men-B ▪ No meningococcal vaccination | 3 2 1 0 |
| (3) Handing-over and carrying a medical alert card | Range 0-2 |
| <ul style="list-style-type: none"> ▪ Medical alert card handed out, permanently carried along (e.g. in purse) ▪ Medical alert card handed out but not permanently carried along ▪ No medical alert card handed out | 2 1 0 |
| (4) Stand by-antibiotic prescribed and available ('pill in the pocket') | Range 0-2 |
| <ul style="list-style-type: none"> ▪ Stand by-antibiotic prescribed, antibiotic permanently available (24 h/7 d) ▪ Stand by-antibiotic prescribed, antibiotic not permanently available ▪ No stand by-antibiotic prescribed | 2 1 0 |
| Total PrePSS-score [Range] | 0-10 |

¹ 13-valent conjugate vaccine PCV-13 (Prevenar-13[®]) after ≥ 2 months followed by 23-valent polysaccharide vaccine PSV-23 (Pneumovax[®])

² Tetravalent meningococcal conjugate vaccination Men-ACWY (Menveo[®], Nimenrix[®]), two doses at least two months apart; meningococcal serotype B vaccine Men-B (Bexsero[®] [two doses] or Trumenba[®] [three doses]).

Figure S1: PrePSS-score stratified by the intensity of the physician-centered intervention

