**Supplementary file 3. Sustainability of professionals' adherence to clinical practice guidelines (detailed table)**

| Study ID | Primary outcome(s) | Adherence PRE measurement | Adherence EARLY POST measurement | Adherence LATE POST measurement | Time frame (years) |
|---|---|---|---|---|---|
| **Ament [20]** | Proportion of patients treated following guideline recommendations: | | | | 5 |
| | 1a.Treatment is discussed in a preoperative multidisciplinary meeting*(n) | 86% (n=139/161) | 95% (154/163) | 100% (n=156/156) | |
| | 1b.The interval between referral and first visit to the breast unit is 5 working days or less*(n) | 37% (n=16/44) | 61% (45/75) | 84% (n=109/130) | |
| | 1c.The interval between diagnostic tests and informing patients about the results is 5 working days or less*(n) | 62% (n=99/161) | 64% (n=105/163) | 90% (n=133/147) | |
| | 1d.The interval between the decision to operate and surgery is 15 working days or less*(n) | 89% (n= 144/161) | 80% (n=131/163) | 80% (n=128/160) | |

| Study ID | Primary outcome(s) | Adherence PRE measurement | Adherence EARLY POST measurement | Adherence LATE POST measurement | Time frame (years) |
|---|---|---|---|---|---|
| | 1e.The general practitioner is informed about the diagnosis, treatment plan and potential side-effects prior to surgery*(n) | 73% (n=118/161) | 76% (n=123/163) | 98% (n=156/160) | |
| | 1f.The breast nurse stays in contact with the patient after short stay (phone consultation)* (n) | 7% (n=11/161) | 12% (n=19/163) | 15% (n=24/159) | |
| | Overall | 59% | 65% | 78% | |
| | (excluding missing values) | | | | |
| | (original guideline comprises thirteen key recommendations) | | | | |
| Benenson [21] | (1)Mean time to treatment | (1)314.7 min (SD=199.0) | (1)174.7 min (SD=113.1) | (1)171.2 min (SD=98.8) | 3 |
| | (2) Initial treatment given at emergency department | (2)36/63 (58.1%) | (2)90/96 (93.8%) | (2)118/122 (96.7%) | |
| Cates [22] | Annual number of prescriptions per 100 children < 5 years old (n) | Centre 1: n=139 | Centre 1: n=95 | Centre 1: n=76 | Centre 1:3 |

| Study ID | Primary outcome(s) | Adherence PRE measurement | Adherence EARLY POST measurement | Adherence LATE POST measurement | Time frame (years) |
|---|---|---|---|---|---|
| | | Centre 2: n=122 | Centre 2: n=67 | Centre 2: n=61 | Centre 2:2 |
| Enriquez-Puga [23] | (1)Number of items antibiotics (co-amixiclav and quinolone) prescribed for each six-month study period per 1000 patients | (1)Intervention group:<br><br>6.9<br><br>(1)Control group:<br><br>5.8 | (1)Intervention group:<br><br>4.6<br><br>(1)Control group:<br><br>6.2 | (1)Intervention group:<br><br>5.8<br><br>(1)Control group:<br><br>6.4 | 1.5 |
| | (2)Number of items antidepressants (lofepramine and fluoxetine) prescribed for each six-month study period per 1000 patients | (2)Intervention group:<br><br>26.7<br><br>(2)Control group:<br><br>20.9 | (2)Intervention group:<br><br>27.7<br><br>(2)Control group:<br><br>21.4 | (2)Intervention group:<br><br>28.6<br><br>(2)Control group:<br><br>20.8 | |

| Study ID | Primary outcome(s) | Adherence PRE measurement | Adherence EARLY POST measurement | Adherence LATE POST measurement | Time frame (years) |
|---|---|---|---|---|---|
| | Notes: regression analysis adjusting for baseline | | | | |
| Forsner [24] | 1 Proportion of patients treated following guideline recommendations for depression | | | | 1.5 |
| | 1a Accessibility/wait time | Intervention group: 77.9% (n=95/122) Control group: 59.0% (n=36/61) | Intervention group: 89.2% (n=107/120) Control group: 53.3% (n=32/60) | Intervention group: 90% (n=216/240) Control group: 51.7% (n=62/120) | |
| | 1b Diagnostic assessment | Intervention group: 83.6% (n=102/122) Control group: 88.5% (n=54/61) | Intervention group: 97.5% (n=117/120) Control group: 90.0% (n=54/60) | Intervention group: 97.9% (n=235/240) Control group: 79.2% (n=95/120) | |
| | 1c Diagnostic instrument | Intervention group: 12.3% (n=15/122) | Intervention group: 28.3% (n=34/120) | Intervention group: 44.2% (n=106/240) | |

| Study ID | Primary outcome(s) | Adherence PRE measurement | Adherence EARLY POST measurement | Adherence LATE POST measurement | Time frame (years) |
|---|---|---|---|---|---|
| | 1d Standardized rating scale | Control group:<br><br>1.6% (n=1/62)<br><br>Intervention group:<br><br>64.8% (n=79/122) | Control group:<br><br>0% (n=0/60)<br><br>Intervention group:<br><br>91.7% (n=110/120) | Control group:<br><br>0.8% (n=1/120)<br><br>Intervention group:<br><br>94.2% (n=226/240) | |
| | 1e Standardized rating scale during treatment | Control group:<br><br>44.3% (n=27/61)<br><br>Intervention group:<br><br>50.0% (n=61/122) | Control group:<br><br>33.3% (n=20/60)<br><br>Intervention group:<br><br>87.5% (n=105/120) | Control group:<br><br>36.7% (n=44/120)<br><br>Intervention group:<br><br>88.3% (n=212/240) | |
| | 1f Substance/drug abuse | Control group:<br><br>24.6% (n=15/61)<br><br>Intervention group:<br><br>46.7% (n=57/122) | Control group:<br><br>38.3% (n=23/60)<br><br>Intervention group:<br><br>87.5% (n=105/120) | Control group:<br><br>33.3% (n=40/120)<br><br>Intervention group:<br><br>88.8% (n=213/240) | |
| | 1g Treatment (care) plan | Control group:<br><br>32.8% (n=20/61)<br><br>Intervention group: | Control group:<br><br>53.2% (n=32/60)<br><br>Intervention group: | Control group:<br><br>43.3% (n=52/120)<br><br>Intervention group: | |

| Study ID | Primary outcome(s) | Adherence PRE measurement | Adherence EARLY POST measurement | Adherence LATE POST measurement | Time frame (years) |
|---|---|---|---|---|---|
| | | 59.8% (n=73/122) | 87.5% (n=105/120) | 91.3% (n=219/240) | |
| | | Control group: | Control group: | Control group: | |
| | | 42.6% (n=26/61) | 38.3% (n=23/60) | 27.5% (n=33/120) | |
| | 1h Evaluation/outcome | Intervention group: | Intervention group: | Intervention group: | |
| | | 66.4% (n=81/122) | 95.8% (115/120) | 95.8% (n=230/240) | |
| | | Control group: | Control group: | Control group: | |
| | | 59.0% (n=36/61) | 55.0% (n=33/60) | 48.3 (n=58/120) | |
| | 1i Continuity | Intervention group: | Intervention group: | Intervention group: | |
| | | 77.0% (n=94/122) | 95.0% (n=114/120) | 95.8% (n=230/240) | |
| | | Control group: | Control group: | Control group: | |
| | | 78.7% (n=48/61) | 61.7% (n=37/60) | 68.3% (n=82/120) | |
| | 1j Suicide assessment | Intervention group: | Intervention group: | Intervention group: | |
| | | 40.2% (n=49/122) | 95.8% (n=115/120) | 97.5% (n=234/240) | |
| | | Control group: | Control group: | Control group: | |
| | | 45.9% (n=28/61) | 35.0% (n=21/60) | 30.0% (n=36/120) | |

| Study ID | Primary outcome(s) | Adherence PRE measurement | Adherence EARLY POST measurement | Adherence LATE POST measurement | Time frame (years) |
|---|---|---|---|---|---|
| | 1k Antidepressant medication | Intervention group:<br><br>54.1% (n=66/122)<br><br>Control group:<br><br>45.9% (n=28/61) | Intervention group:<br><br>90.8% (n=109/120)<br><br>Control group:<br><br>36.7% (n=22/60) | Intervention group:<br><br>92.5% (n=222/240)<br><br>Control group:<br><br>41.7% (n=50/120) | |
| | 2 Proportion of patients treated following guideline recommendations for suicidal behaviour in % (n) | | | | |
| | 2a Accessibility/wait time | Intervention group:<br><br>15.7% (n=19/121)<br><br>Control group:<br><br>29.5% (n=18/61) | Intervention group:<br><br>14.2% (n=17/120)<br><br>Control group:<br><br>31.7% (n=19/60) | Intervention group:<br><br>59.2% (n=142/240)<br><br>Control group:<br><br>0% (n=0/120) | |
| | 2b Diagnostic assessment | Intervention group:<br><br>49.6% (n=60/121)<br><br>Control group: | Intervention group:<br><br>73.3% (n=88/120)<br><br>Control group: | Intervention group:<br><br>91.7% (n=220/240)<br><br>Control group: | |

| Study ID | Primary outcome(s) | Adherence PRE measurement | Adherence EARLY POST measurement | Adherence LATE POST measurement | Time frame (years) |
|---|---|---|---|---|---|
| | | 26.2% (n=16/61) | 16.7% (n=10/60) | 0% (n=0) | |
| | 2c Diagnostic instrument | Intervention group: | Intervention group: | Intervention group: | |
| | | 0% (n=0/121) | 7.5% (n=9/120) | 7.5% (n=18) | |
| | | Control group: | Control group: | Control group: | |
| | | 0% (n=0/61) | 0% (n=0/60) | 0% (n=0) | |
| | 2d Standardized rating scale | Intervention group: | Intervention group: | Intervention group: | |
| | | 41.3% (n=50/121) | 67.5% (n=81/120) | 78.3% (n=188) | |
| | | Control group: | Control group: | Control group: | |
| | | 27.9% (n=17/61) | 16.7% (n=10/60) | 0.8% (n=1) | |
| | 2e Standardized rating scale during treatment | Intervention group: | Intervention group: | Intervention group: | |
| | | 16.5% (n=20/121) | 52.5% (n=63/120) | 55.8% (n=134) | |
| | | Control group: | Control group: | Control group: | |
| | | 16.4% (n=10/61) | 10.0% (n=6/60) | 5.0% (n=6) | |
| | 2f Substance/drug abuse | Intervention group: | Intervention group: | Intervention group: | |
| | | 52.1% (n=63/121) | 64.2% (n=77/120) | 80.0% (n=192) | |

| Study ID | Primary outcome(s) | Adherence PRE measurement | Adherence EARLY POST measurement | Adherence LATE POST measurement | Time frame (years) |
|---|---|---|---|---|---|
| | 2g Treatment (care) plan | Control group:<br><br>55.7% (n=34/61)<br><br>Intervention group:<br><br>37.4% (n=68/182) | Control group:<br><br>56.7% (n=34/60)<br><br>Intervention group:<br><br>58.9% (n=106/120) | Control group:<br><br>29.2% (n=35)<br><br>Intervention group:<br><br>79.2% (n=190) | |
| | 2h Evaluation/outcome | Control group:<br><br>44.3% (n=27/61)<br><br>Intervention group:<br><br>20.7% (n=25/121) | Control group:<br><br>41.7% (n=25/60)<br><br>Intervention group:<br><br>47.5% (n=57/120) | Control group:<br><br>0.8% (n=1)<br><br>Intervention group:<br><br>51.7% (n=124) | |
| | 2i Continuity | Control group:<br><br>19.7% (n=12/61)<br><br>Intervention group:<br><br>86.0% (n=104/121) | Control group:<br><br>8.3% (n=5/60)<br><br>Intervention group:<br><br>81.7% (n=98/120) | Control group:<br><br>0% (n=0)<br><br>Intervention group:<br><br>91.3% (n=219) | |
| | 2j Suicide assessment | Control group:<br><br>49.2% (n=30/61)<br><br>Intervention group: | Control group:<br><br>31.7% (n=19/60)<br><br>Intervention group: | Control group:<br><br>0% (n=0)<br><br>Intervention group: | |

| Study ID | Primary outcome(s) | Adherence PRE measurement | Adherence EARLY POST measurement | Adherence LATE POST measurement | Time frame (years) |
|---|---|---|---|---|---|
| | | 55.4% (n=67/121) | 93.3% (n=112/120) | 97.1% (n=233) | |
| | | Control group: | Control group: | Control group: | |
| | | 82.0% (n=50/61) | 73.3% (n=44/60) | 56.7% (n=68) | |
| | 2k Specialist assessment | Intervention group: | Intervention group: | Intervention group: | |
| | | 50.4% (n=61/121) | 85.4% (n=103/120) | 91.7% (n=220) | |
| | | Control group: | Control group: | Control group: | |
| | | 83.6% (n=51/61) | 83.3% (n=50/60) | 71.7% (n=86) | |
| | 2l Follow-up | Intervention group: | Intervention group: | Intervention group: | |
| | | 72.7% (n=88/121) | 88.3% (n=106/120) | 92.1% (n=221) | |
| | | Control group: | Control group: | Control group: | |
| | | 75.4% (n=46/61) | 65.0% (n=39/60) | 37.5% (n=45) | |
| | 2m Evaluation assessment | Intervention group: | Intervention group: | Intervention group: | |
| | | 32.2% (n=39/121) | 64.2% (n=77/120) | 75.0% (n=180) | |
| | | Control group: | Control group: | Control group: | |
| | | 18.0% (n=11/61) | 13.3% (n=8/60) | 10.8% (n=13) | |

| Study ID | Primary outcome(s) | Adherence PRE measurement | Adherence EARLY POST measurement | Adherence LATE POST measurement | Time frame (years) |
|---|---|---|---|---|---|
| **Gerber [35]** | Proportion of patients receiving care according to guideline recommendations | n= 396.074<br><br>26,80% | n=253.516<br><br>14,30% | n=unclear<br><br>27,90% | 1.5 |
| **Higuchi [25]** | 1 Proportion of patients receiving care according to asthma guideline recommendations | Not clear | (total n=10) | (total n=62) | Asthma: 4<br><br>Diabetes: 3 |
| | 1a Respiratory assessment done | | n=10/10 100% | n=61/62 98.4% | |
| | Level of asthma control documented for : | | | | |
| | 1b medication in use | | n=10/10 100% | n=61/62 98.4% | |
| | 1c Use of B2 agonist | | n=10/10 100% | n=52/62 84.4% | |
| | 1d Experience of daytime symptoms | | n=8/10 80.0% | n=32/62 51.7% | |
| | 1e Experience of night time and/or awaking symptoms | | n=8/10 80.0% | n=16/62 26.2% | |
| | 1f Physical activity | | n= unclear 77.8% | n=29/62 46.8% | |

| Study ID | Primary outcome(s) | Adherence PRE measurement | Adherence EARLY POST measurement | Adherence LATE POST measurement | Time frame (years) |
|---|---|---|---|---|---|
| | 1g Absence from school or work | | n=7/10 70.0% | n=3/62 4.9% | |
| | 1h Exacerbation | | n=7/10 70.0% | n=47/62 76.2% | |
| | 1i Individualised action plan developed for client's discharge | | n=7/10 70.0% | n=2/62 3.2% | |
| | 1j Baseline teaching information on asthma provided to patient by a nurse | | n=6/10 60.0% | n=16/62 25.4% | |
| | 1k Written information on asthma provided | | n=6/10 60.0% | n=4/62 6.6% | |
| | 2 Proportion of patients receiving care according to diabetes foot care guideline | | (total n=50) | (total n=65) | |
| | 2a Assessment for risk factors: foot ulceration/amputation | | n=22/50 44.0% | n=64/65 98.5% | |
| | 2b Assessment loss of protective sensation | | n=5/50 10.0% | n=10/65 15.6% | |
| | 2c Assessment Structural or biochemical abnormalities | | n=3/50 6.0% | n=59/65 90.8% | |
| | 2d Assessment evidence of impaired circulation | | n=1/50 2.0% | n=34/65 52.3% | |
| | 2e Assessment Deficit in self-care behaviour | | n=14/50 28.0% | n=10/65 15.4% | |
| | 2f Monofilament used to assess sensation in the feet | | n=21/50 42.0% | n=41/65 63.1% | |

| Study ID | Primary outcome(s) | Adherence PRE measurement | Adherence EARLY POST measurement | Adherence LATE POST measurement | Time frame (years) |
|---|---|---|---|---|---|
| | 2g Risk classification for foot ulcer/amputation | | n=37/50 73.7% | n=30/65 45.9% | |
| | Basic foot care education done on: | | | | |
| | 2h Client's risk factors | | n=15/50 30.0% | n=53/62 81.5% | |
| | 2i Daily self-inspection of feet | | n=15/50 30.0% | n=53/62 81.5% | |
| | 2j Proper nail and skin care | | n=15/50 30.0% | n=54/62 83.1% | |
| | 2k Injury prevention | | n=15/50 30.0% | n=53/62 81.5% | |
| | 2l When to seek help | | n=15/50 30.0% | n=54/62 83.1% | |
| Kelly [26] | Proportion of patients receiving IM narcotic analgesia | 76% (n=48/63) | NA | 3% (n=2/65) | 2 |
| Knops [27] | (1)Proportion of patients receiving care according to fluid balance guideline recommendations | (1)NA | (1)NA | (1)100% (534/534) | 7 |
| | (2)Proportion of patients receiving care according to body temperature guideline recommendations | (2)NA | (2)91% | (2)50% (617/1226) | |

| Study ID | Primary outcome(s) | Adherence PRE measurement | Adherence EARLY POST measurement | Adherence LATE POST measurement | Time frame (years) |
|---|---|---|---|---|---|
| | | | | | |
| Loszadi [28] | Proportion of patients receiving care according to guideline recommendations | 61% (n=29/48) | 79% (n=38/48) | 92% (n=44/48) | unclear, >2 |
| Mclaws [29] | (hand hygiene events observed / hand hygiene opportunities)x100 (%) | 47% (3795/8057) | 62% (NA) | 58% (4041/6972) | 1.5 |
| Stephan [30] | Proportion of patients receiving care according to guideline recommendations | NA | 82.2% (n=410/499) | 80.8% (n=242/300) | 1.5 |
| Wakefield [31] | Proportion of patients receiving care according to guideline recommendations | Authors reported that the LATE POST compliance was lower compared to the EARLY POST measurement, but no further details were provided | NA | NA | 1.5 |
| Williams [32] | Proportion of patients treated according to guideline recommendations for the repair and follow-up of third degree tears | | | | 2 |
| | A Senior SpR present | 30% (n=13/44) | 40% (n=20/50) | 60% (n=18/30) | |
| | Theatre | 70% (n=31/44) | 82% (n=41/50) | 97% (n=29/30) | |

| Study ID | Primary outcome(s) | Adherence PRE measurement | Adherence EARLY POST measurement | Adherence LATE POST measurement | Time frame (years) |
|---|---|---|---|---|---|
| | GA/Regional | 70% (n=31/44) | 82% (n=41/50) | 97% (n=29/30) | |
| | Prolene | 64% (n=28/44) | 76% (n=38/50) | 93% (n=28/30) | |
| | Overlap documented | 30% (n=13/44) | 54% (n=27/50) | 67% (n=20/30) | |

na: not applicable