

## Appendix 3. Studies excluded after quality assessment

### Systematic reviews excluded because of very low or low AMSTAR 2 score

| Author/year                             | Title   | PRISMA | AMSTAR 2 |
|---|---|--------|----------|
| Jalal, Smith et al. 2014                | Pharmacy care and adherence to primary and secondary prevention cardiovascular medication: A systematic review of studies                             | 14     | 3,5      |
| Omran, Guirguiset al. 2012              | Systematic Review of Pharmacist Interventions to Improve Adherence to Oral Antidiabetic Medications in People with Type 2 Diabetes                    | 15     | 3,5      |
| Heise, Servellen 2014                   | The nurse's role in primary care antidepressant medication adherence  | 15     | 4        |
| Kripalani, Yao et al. 2007              | Interventions to Enhance Medication Adherence in Chronic Medical Conditions   | 16     | 5        |
| Cai, Dai et al. 2013                    | Pharmacist care and the management of coronary heart disease: a systematic review of randomized controlled trials                                     | 18     | 5,5      |
| Williams, Manias et al. 2008            | Interventions to improve medication adherence in people with multiple chronic conditions: a systematic review   | 16     | 6        |
| Al-Jumah, Qureshi, 2012                 | Impact of pharmacist interventions on patients' adherence to antidepressants and patient-reported outcomes: A systematic review                       | 17     | 6,5      |
| Jackson, Gray et al. 2016               | EHealth technologies in inflammatory bowel disease: A systematic review   | 19     | 6,5      |
| Laba, Bleasel et al. 2013               | Strategies to improve adherence to medications for cardiovascular diseases in socioeconomically disadvantaged populations: a systematic review        | 21     | 6,5      |
| Pousinho, Morgado et al. 2016           | Pharmacist Interventions in the Management of Type 2 Diabetes Mellitus: A Systematic Review of Randomized Controlled Trials                           | 19     | 7,5      |
| Simon-Tuval, Neumann et al. 2016        | Cost-effectiveness of adherence-enhancing interventions: A systematic review  | 20     | 7,5      |
| Van Heuckelum, Van Den Ende et al. 2016 | Electronic monitoring feedback to improve medication adherence and clinical outcomes  | 22     | 7,5      |
| El Hajj, Jaam et al. 2017               | Effect of pharmacist care on medication adherence and cardiovascular outcomes among patients post-acute coronary syndrome: A systematic review        | 18     | 8        |
| Hartung, Low et al. 2017                | Interventions to Improve Pharmacological Adherence Among Adults With Psychotic Spectrum Disorders and Bipolar Disorder: A Systematic Review           | 23     | 8        |
| Oberjé, de Kinderen et al. 2013         | Cost effectiveness of medication adherence-enhancing interventions: a systematic review of trial-based economic evaluations                           | 21     | 8        |
| Mathes, Grosspietsch et al. 2017        | Interventions to increase adherence in patients taking immunosuppressive drugs after kidney transplantation: A systematic review of controlled trials | 19     | 8,5      |
| Readdean, Heuer et al. 2017             | Effect of pharmacist intervention on improving antidepressant medication adherence and depression symptomology: A systematic review and meta-analysis | 25     | 8,5      |
| Ruppar, Cooper et al. 2016              | Medication adherence interventions improve heart failure mortality and readmission rates: Systematic review and meta-analysis of controlled trials    | 24     | 8,5      |

SR excluded despite moderate or high AMSTAR 2 score

| Author/year                 | Title   | PRISMA | AMSTAR 2 | Reason for exclusion  |
|-----------------------------|---|--------|----------|---|
| Hatah, Braund et al. 2014   | A systematic review and meta-analysis of pharmacist-led fee-for-services medication review  | 25     | 12       | Eligible studies had overlap with studies in Nieuwlaat 2014 and Normansell 2017   |
| Karumbi, Garner, 2015       | Directly observed therapy for treating tuberculosis   | 23     | 11       | Wrong/mixed interventionists  |
| McLean, Murray et al. 2016  | Interactive digital interventions to promote self-management in adults with asthma: Systematic review and meta-analysis                             | 24     | 12,5     | The two eligible RCTs were from the same study (SMASHING)   |
| Renaudin, Boyer et al. 2016 | Do pharmacist-led medication reviews in hospitals help reduce hospital readmissions? A systematic review and meta-analysis                          | 25     | 10       | The characteristics of the included studies were too poorly reported. Missing information about samples in IG and CG, the duration and content of the interventions |
| Rocha, Silveira et al. 2015 | Pharmaceutical interventions in antiretroviral therapy: Systematic review and meta-analysis of randomized clinical trials                           | 24     | 11,5     | One of the two eligible studies had overlap with Nieuwlaat 2014   |
| Thomas, Huntley et al. 2014 | Pharmacist-led interventions to reduce unplanned admissions for older people: a systematic review and meta-analysis of randomised controlled trials | 23     | 10,5     | The included studies did not report how adherence was measured. Adherence was part of the interventions but not in focus  |