**Supplementary Table S1: Overview of the KDIGO AKI definition and classification**

**AKI is defined as any of the following:**

|  |
| --- |
| Increase in SCr by ≥ 0.3 mg/dl (≥ 26.5 µmol/l) within 48 hours, **OR** |
| Increase in SCr to ≥ 1.5 times baseline, which is known or presumed to have occurred within the prior 7 days, **OR** |
| Urine volume < 0.5 ml/kg/h for 6 hours |

**AKI is staged for severity according to the following criteria:**

|  |  |  |
| --- | --- | --- |
| **Stage** | **Serum creatinine** | **Urine output** |
| 1 | 1.5–1.9 times baseline, **OR** | < 0.5 ml/kg/h for 6–12 hours |
| ≥ 0.3 mg/dl (≥ 26.5 µmol/l) increase |
| 2 | 2.0–2.9 times baseline | < 0.5 ml/kg/h for ≥ 12 hours |
| 3 | 3.0 times baseline, **OR** | < 0.3 ml/kg/h for ≥ 24 hours, **OR**Anuria for ≥ 12 hours |
| Increase in serum creatinine to ≥ 4.0 mg/dl (≥ 353.6 µmol/l), **OR** |
| Initiation of renal replacement therapy, **OR** |
| In patients < 18 years, decrease in eGFR to < 35 ml/min per 1.73 m2 |

*Ref: Kidney International Supplements (2012) 2, 19–36; doi:10.1038/kisup.2011.32*

**Supplementary Table S2: Search Strategy**

| **S.No** | **Search Term** | **Hits** |
| --- | --- | --- |
| 1 |  exp acute renal failure/ | 130708 |
| 2 |  exp acute kidney injury/ | 130708 |
| 3 |  (acute renal failure or acute kidney failure or ARF).tw. | 72020 |
| 4 |  (acute kidney injuries or acute Kidney injury or acute renal injury or acute renal injuries or AKI).tw. | 65193 |
| 5 |  (acute renal insufficiency or acute renal insufficiencies or acute kidney insufficiency or acute kidney insufficiencies).tw. | 3348 |
| 6 |  1 or 2 or 3 or 4 or 5 | 183443 |
| 7 |  renal replacement therapy/ | 51552 |
| 8 |  renal dialysis/ | 179756 |
| 9 |  hemodialysis/ | 199425 |
| 10 |  hemodiafiltration/ | 5370 |
| 11 |  hemofiltration/ | 11950 |
| 12 |  7 or 8 or 9 or 10 or 11 | 256438 |
| 13 |  (CVVHD or CAVHD or CAVHF or CVVHF or CVVHDF or CAVHDF or CRRT or SCUF or CAVH or CVVH).tw. | 8342 |
| 14 |  (contin$ adj4 (dialy$ or hemodia$ or haemodia$ or hemofiltr$ or haemofiltr$ or hemodiafilt$ or haemodiafilt$ or filtrat$ or renal replacement therap$ or ultrafiltr$)).tw. | 33717 |
| 15 |  (IRRT or IHD or HDI).tw. | 18925 |
| 16 |  (intermittent$ adj4 (dialy$ or hemodia$ or haemodia$ or hemofiltr$ or haemofiltr$ or hemodiafilt$ or haemodiafilt$ or filtrat$ or renal replacement therap$ or ultrafiltr$)).tw. | 5276 |
| 17 |  ((non-continu$ or noncontinu$ or discontinue$) adj4 (dialy$ or hemodia$ or haemodia$ or hemofiltr$ or haemofiltr$ or hemodiafilt$ or haemodiafilt$ or filtrat$ or renal replacement therap$ or ultrafiltr$)).tw. | 834 |
| 18 |  13 or 14 or 15 or 16 or 17 | 57289 |
| 19 |  12 or 18 | 296583 |
| 20 |  6 and 19 | 30216 |
| 21 |  Economics/ | 265881 |
| 22 |  exp Health Economics/ | 850005 |
| 23 |  Budget/ | 40608 |
| 24 |  budget\*.ti,ab,kw. | 69019 |
| 25 |  (economic\* or cost or costs or costly or costing or price or prices or pricing or pharmacoeconomic\* or pharmaco-economic\* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed).ti,kw. | 501191 |
| 26 |  (economic\* or cost or costs or costly or costing or price or prices or pricing or pharmacoeconomic\* or pharmaco-economic\* or expenditure or expenditures or expense or expenses or financial or finance or finances or financed).ab. /freq=2 | 705022 |
| 27 |  (cost\* adj2 (effective\* or utilit\* or benefit\* or minimi\* or analy\* or outcome or outcomes)).ab,kw. | 393827 |
| 28 |  (value adj2 (money or monetary)).ti,ab,kw. | 5720 |
| 29 |  Statistical Model/ | 252721 |
| 30 |  economic model\*.ab,kw. | 8265 |
| 31 |  Probability/ | 163675 |
| 32 |  markov.ti,ab,kw. | 51793 |
| 33 |  monte carlo method/ | 68946 |
| 34 |  monte carlo.ti,ab,kw. | 99432 |
| 35 |  Decision Theory/ | 2665 |
| 36 |  Decision Tree/ | 24357 |
| 37 |  (decision\* adj2 (tree\* or analy\* or model\*)).ti,ab,kw. | 59154 |
| 38 |  21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 | 2344804 |
| 39 |  20 and 38 | 1187 |
| 40 |  limit 39 to humans | 1151 |
| 41 |  limit 40 to (books or chapter or editorial or letter or note or "review" or autobiography or biography or case reports or comment or lecture or news or newspaper article) | 314 |
| 42 |  40 not 41 | 837 |
| 43 |  remove duplicates from 42 | 722 |

**Supplementary Table 3. Quality assessment of included studies based on Drummond checklist**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Study Design** | **Klarenbach et al. 2009** | **De Smedt et al. 2012** | **Ethgen et al. 2015** | **Garay et al. 2020** | **Ramirez et al. 2017** | **Ariza e al. 2017** | **Gresse et al. 2019** |
| **The research question is stated.** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
|  **The economic importance of the research question is stated.** | Yes | Yes | Yes | Yes | No | Yes | No |
| **The viewpoint(s) of the analysis are clearly stated and justified**. | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **The rationale for choosing alternative programmes or interventions compared is stated** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **The alternatives being compared are clearly described** | Yes | Yes | Yes | Yes | Yes | Yes | No |
| **The form of economic evaluation used is stated** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **The choice of form of economic evaluation is justified in relation to the question addressed** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Data Collection** |   |   |   |   |   |   |   |
| **The sources (s) of effectiveness estimates used are stated** | Yes | Yes | Yes | Yes | No | Yes | Yes |
| **Details of the design and results of the effectiveness study are given (if based on a single study)** | NA | Yes | Yes | NA | NA | No | NA |
| **Details of the methods of synthesis or meta-analysis of estimates are given (if based on a synthesis of a number of effectiveness studies)** | No | NA | NA | Yes | NA | No | Yes |
| **The primary outcome measure(s) for the economic evaluation are clearly stated** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Methods to value benefits are stated** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Details of the subjects from whom valuations were obtained are given** | No | Yes | No | Yes | No | Yes | No |
| **Productivity changes (if included) are reported separately** | NA | NA | NA | NA | NA | NA | NA |
| **The relevance of productivity changes to the study question is discussed** | NA | NA | NA | NA | NA | NA | NA |
| **Quantities of resource use are reported separately from their unit costs** | Yes | Yes | Yes | Yes | No | Yes | Yes |
| **Methods for the estimation of quantities and unit costs are described** | Yes | Yes | Yes | Yes | No | No | No |
| **Currency and price date are recorded** | Yes | No | Yes | Yes | No | Yes | No |
| **Details of currency of price adjustments for inflation or currency conversion are given** | Yes | No | Yes | NA | No | No | No |
| **Details of any model used are given** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **The choice of model used and the key parameters on which it is based are justified** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Analysis and Interpretation of results** |   |   |   |   |   |   |   |
| **Time horizon of costs and benefits is stated** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **The discount rate(s) is stated** | Yes | Yes | Yes | Yes | Yes | Yes | No |
| **The choice of discount rate(s) is justified** | No | No | No | Yes | Yes | No | No |
| **An explanation is given if costs and benefits are not discounted** | NA | NA | NA | NA | NA | NA | NA |
| **Details of statistical tests and confidence intervals are given for stochastic data** | Yes | No | No | No | No | No | No |
| **The approach to sensitivity analysis is given** | Yes | Yes | Yes | Yes | Yes | Yes | No |
| **The choice of variables for sensitivity analysis is justified** | Yes | Yes | Yes | Yes | No | Yes | No |
| **The ranges over which the variables are varied are justified** | Yes | Yes | Yes | Yes | No | Yes | No |
| **Relevant alternatives are compared** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Incremental analysis is reported** | No | Yes | Yes | No | No | No | No |
| **Major outcomes are presented in a disaggregated as well as an aggregated form** | Yes | Yes | Yes | No | No | No | No |
| **The answer to the study question is given** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Conclusions follow from the data reported** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Conclusions are accompanied by the appropriate caveats** | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| **Were generalisability issues addressed?** | Yes | Yes | Yes | Yes | No | Yes | Yes |