|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Trial** | **Trial described as randomized?** | **Method of randomization appropriate?** | **Trial described as double blind?** | **Blinding described and appropriate?** | **Was there a description of withdrawals and dropouts?** | **Total Score** |
| **Butscher et al12 (1996)** | Yes | Yes | No | N/A | Yes | 3 |
| **Marik et al**13**(1997)** | Yes | Yes | No | N/A | Yes | 3 |
| **Guo et al14 (2003)** | Yes | Not mentioned | No | N/A | Yes | 2 |
| **Senagore et al15 (2006)** | Yes | Yes | Yes | Yes | No | 4 |
| **Ando et al16 (2008)** | Yes | Not mentioned | No | No | No | 1 |
| **Zhang et al117 (2012)** | Yes | Yes | Yes | N/A | Yes | 4 |
| **Feldheiser et al**18**(2013)** | Yes | Yes | Yes | Yes | Yes | 5 |
| **Lindroos et al19 (2013)** | Yes | Yes | No | No | Yes | 3 |
| **Rasmussen et al20 (2013)** | Yes | Yes | Yes | No | Yes | 4 |
| **Hung et al21 (2014)** | Yes | Yes | No  | N/A | Yes | 3 |
| **Krebbel et al22 (2014)** | Yes | Yes | Yes | Yes | Yes | 5 |
| **Szturz et al23 (2014)** | Yes | Yes | No | N/A | Yes | 3 |
| **Yates et al24 (2014)** | Yes | Yes | Yes | Yes | Yes | 5 |

1. **Individual Jadad items scores for each included trial**
2. **Summary Cochrane risk of bias assessment**



1. **Individual studies Cochrane risk of bias assessment**



1. **Source of study outcome data**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Trial** | **Mortality** | **Infection** | **Renal dysfunction** | **Length of stay** |
| **Butscher et al14 (1996)** | Publication | Publication | Publication | No data |
| **Marik et al**15**(1997)** | Author | Author\* | No data | Publication |
| **Guo et al16 (2003)** | Publication | No data | No data | Publication |
| **Senagore et al17 (2006)** | Publication | Publication | No data | Publication |
| **Ando et al18 (2008)** | Publication | Publication | No data | Publication |
| **Zhang et al19 (2012)** | Publication | Publication | No data | Publication |
| **Feldheiser et al**20**(2013)** | Publication | No data | No data | Publication |
| **Lindroos et al21 (2013)** | Author\* | Author\* | Author\* | No data |
| **Rasmussen et al22 (2013)** | Author\* | Author\* | Author\* | Publication |
| **Hung et al23 (2014)** | Publication | No data | Author\* | No data |
| **Krebbel et al24 (2014)** | Author\* | Author\* | Author\* | Author\* |
| **Szturz et al25 (2014)** | Author\* | Author\* | Author\* | Author |
| **Yates et al26 (2014)** | Publication | Publication | Publication | Author\* |

\*Unpublished endpoint data from author

1. **Outcome definitions**

|  |  |  |  |
| --- | --- | --- | --- |
| **Trial** | **Mortality definition** | **Major infection definition** | **Renal dysfunction definition** |
| **Butscher et al14 (1996)** | In hospital | Bacteraemia infection with positive blood culture | RRT- in hospital |
| **Marik et al**15**(1997)** | In hospital | Pneumonia, blood stream infection and abdominal sepsis | No |
| **Guo et al16 (2003)** | In hospital | No | No |
| **Senagore et al17 (2006)** | In hospital | Sepsis | No |
| **Ando et al18 (2008)** | In hospital | No | No |
| **Zhang et al19 (2012)** | In hospital | Pulmonary infection | No |
| **Feldheiser et al**20**(2013)** | In hospital | No | No |
| **Lindroos et al21 (2013)** | In hospital | No | AKI or RRT- within 3 to 6 months postop |
| **Rasmussen et al22 (2013)** | In hospital | No | Creatinine > 300 µmol/l- in hospital |
| **Hung et al23 (2014)** | In hospital | No | RRT- in hospital |
| **Krebbel et al24 (2014)** | 90 day mortality | Sepsis as per 'Surviving Sepsis Campaign' definitions |  |
| **Szturz et al25 (2014)** | In hospital | Sepsis and septic shock as defined in ‘Surviving Sepsis Campaign’ | Oliguria (<500ml/day), creatinine increase >30% from preoperative creatinine, or urinary catheter for nonsurgical reason- in hospital |
| **Yates et al26 (2014)** | In hospital | Sepsis | Renal failure- in hospital |

RRT – renal replacement therapy; AKI – acute kidney infection

1. **Forest plot for hospital length of stay in patients receiving HES as compared to those receiving crystalloid**

****

HES = Hydroxyethyl starch; CI = confidence interval; M-H = Mantel Haenszel

1. **Forest plot for major infections in patients receiving HES as compared to those receiving crystalloid**

****

HES = Hydroxyethyl starch; CI = confidence interval; M-H = Mantel Haenszel