

S1: Characteristics of the included studies.

| Reference | Year | Admission category | Location | n | Age, | Reference | Year | Admission category | Location |
|------------------|--------|----------------------|-------------|-----|------|-----------|------|--|-------------------------------|
| Abidi | 2008 | medical | Morocco | 140 | 43 | 59 | 86 | CRP | --- |
| Ahmadinejad | 2009 | medical and surgical | Iran | 120 | 60 | 49 | 59 | PCT | No information |
| Al-Nawas | 1996 | medical | Germany | 337 | --- | --- | 36 | PCT | SSS |
| Anand | 2015 A | --- | India | 136 | 51 | 61 | 66 | PCT, IL-6 | SSS |
| Anand | 2015 B | --- | India | 118 | 51 | 62 | 61 | PCT, IL-6 | SSS |
| Balc | 2003 | medical and surgical | Turkey | 83 | 58 | 52 | 42 | PCT, CRP, IL-6, IL-8, TNF- α , IL-2 | No information |
| Barati | 2010 | medical and surgical | Iran | 95 | 58 | 62 | 55 | CRP, sTREM-1 | No information |
| Battista | 2016 | --- | Italy | 90 | --- | --- | 71 | copeptin, PCT | SSS |
| Bell | 2003 | medical and surgical | Australia | 83 | 61 | 66 | 75 | PCT, CRP | No information |
| Beqja-Lika | 2013 | --- | Albania | 99 | 44 | 45 | 61 | PCT, CRP | No information |
| Carpio | 2015 | medical and surgical | Peru | 123 | 67 | 46 | 93 | presepsin | SSS |
| Castelli | 2004 | medical and surgical | Italy | 49 | 59 | 64 | 69 | PCT, CRP | SSS |
| Clec'h | 2006 | surgical | France | 67 | 63 | 66 | 46 | PCT | septic shock |
| Clec'h | 2006 | medical | France | 76 | 60 | 61 | 47 | PCT | septic shock |
| de Pablo | 2013 | medical and surgical | Spain | 92 | 62 | 67 | 57 | sICAM-1 | No information |
| Dorizzi | 2006 | medical and surgical | Italy | 83 | 66 | 61 | 61 | PCT | SSS |
| Du | 2003 | medical and surgical | China | 51 | 65 | 61 | 39 | PCT, CRP, IL-6 | SSS |
| Endo | 2012 | medical and surgical | Japan | 185 | 71 | 59 | 62 | PCT, IL-6, presepsin | No information |
| Farag | 2013 | medical and surgical | Egypt | 30 | 52 | 33 | 50 | CRP, Leptin | No information |
| Feng | 2012 | medical and surgical | China | 132 | 57 | 64 | 77 | PCT, CRP, sCD163 | Sepsis, severe sepsis |
| Gaini | 2006 | medical | Denmark | 93 | 63 | 48 | 80 | PCT, CRP, IL-6, LBP | SSS |
| Garnacho-Montero | 2014 | medical and surgical | Spain | 160 | 63 | 51 | 64 | PCT, CRP, cf-DNA | "severe sepsis, septic shock" |
| Gerrits | 2013 | --- | Netherland | 44 | 72 | 48 | 57 | CRP, CD64 | SSS |
| Giamarellos | 2008 | surgical | Greece | 69 | 52 | | 62 | sTREM-1 | SSS |
| Gibot | 2004 | medical | France | 76 | 60 | 71 | 62 | PCT, CRP, sTREM-1 | SSS |
| Godnic | 2015 | surgical | Slovenia | 47 | --- | --- | 85 | PCT, CRP, CD64, presepsin | SSS |
| Guyen | 2002 | --- | Turkey | 34 | 56 | 59 | 56 | PCT, CRP | No information |
| Han | 2016 | medical and surgical | China | 198 | 59 | 69 | 52 | miR-143 | SSS |
| Harbarth | 2001 | medical and surgical | Switzerland | 78 | 54 | 73 | 77 | PCT, IL-6, IL-8 | SSS |

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|---------------|------|----------------------|-------------|-----|----|----|----|---------------------------------------|-----------------------------|
| Hoenigl | 2013 | medical and surgical | Austria | 132 | 67 | 50 | 42 | suPAR | No information |
| Hou | 2012 | surgical | China | 67 | 58 | | 36 | DcR3 | No information |
| Hou | 2016 | medical | China | 67 | 56 | 61 | 34 | cf-DNA,IL-6 ,PCT | No information |
| Hsu | 2011 | respiratory | Taiwan | 66 | 69 | 77 | 83 | PCT, CD64, CD64/CD16 | Severe sepsis, septic shock |
| Ishikura | 2014 | medical and surgical | Japan | 82 | 67 | 54 | 52 | presepsin, Protein C | SSS |
| Ivancevic | 2008 | surgical | Serbia | 63 | 55 | 70 | 65 | PCT | No information |
| Jekarl | 2013 | medical and surgical | South Korea | 177 | 52 | 50 | 44 | PCT, CRP, IL-6 | SSS |
| Jekarl | 2014 | --- | Seoul | 127 | 59 | 46 | 76 | PCT, CRP, IL-6 | SSS |
| Jiang | 2015 | surgical | China | 64 | 53 | 59 | 59 | sCD22, PCT, IL-6 | SSS |
| Kim | 2012 | medical and surgical | USA | 48 | 55 | 65 | 52 | DcR3 | No information |
| Kofoed | 2007 | medical | Denmark | 151 | 56 | 48 | 64 | PCT, CRP, sTREM-1, SuPAR, MIF | No information |
| Latour-Perez | 2010 | medical and surgical | Spain | 114 | 69 | 61 | 63 | PCT, CRP, sTREM-1 | SSS |
| Lewis | 2015 | --- | UK | 103 | 57 | 60 | 81 | CD11C, CD64, CRP | No information |
| Li | 2013 | surgical | China | 52 | 56 | 77 | 73 | PCT, IL-6, sTREM-1, TNF- α | SSS |
| Lin A | 2015 | medical | China | 159 | 56 | 79 | 60 | IL-6, PCT | SSS |
| Lin B | 2015 | medical | China | 74 | 56 | 77 | 51 | IL-6, PCT | SSS |
| Matera | 2013 | medical and surgical | Italy | 52 | 64 | 75 | 54 | PCT, CRP, IL-10, sCD25, IFN- γ | No information |
| Mat-Nor | 2016 | medical and surgical | Malaysia | 239 | 47 | 70 | 69 | PCT,IL-6 | SSS |
| Mearelli | 2014 | medical | Italy | 80 | 83 | 55 | 75 | PCT, IP-10, PLA2-II, Ang 2 | No information |
| Meynaar | 2011 | medical and surgical | Netherlands | 76 | 66 | | 42 | PCT, CRP, IL-6, LBP | SSS |
| Miglietta | 2015 | medical and surgical | Italy | 112 | 62 | 55 | 63 | PCT, CRP | No information |
| Miller | 1999 | surgical | USA | 35 | 43 | 71 | 83 | CRP | No information |
| Muthiah | 2007 | medical and surgical | Australia | 130 | 64 | 51 | 29 | PCT | Severe sepsis, septic shock |
| Naeini | 2006 | medical and surgical | Iran | 50 | 56 | 64 | 50 | PCT | SSS |
| Oshita | 2010 | --- | Japan | 168 | 74 | 68 | 67 | PCT,CRP | No information |
| Papadimitriou | 2015 | medical and surgical | Spain | 66 | 50 | 53 | 44 | CD64, CRP | No information |
| Ratzinger | 2013 | medical and surgical | Austria | 298 | 58 | 58 | 72 | LBP | No information |
| Reichsoellner | 2014 | medical | Austria | 159 | 66 | 51 | 69 | PCT | No information |
| Righi | 2014 | medical and surgical | Italy | 93 | 59 | 77 | 66 | CRP, CD64 | SSS |
| Rivera-Chavez | 2009 | surgical | USA | 93 | 35 | 75 | 60 | sTREM-1 | SSS |
| Rogina | 2014 | --- | Slovenia | 88 | 64 | 50 | 47 | PCT, CRP, CD64 | SSS |
| Romualdo | 2014 | medical and surgical | Spain | 226 | 68 | 58 | 16 | PCT, CRP, presepsin | No information |
| Ruiz-Alvarez | 2009 | medical and surgical | Spain | 103 | 67 | 73 | 76 | PCT, CRP, C2, MBL | SSS |

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|--------------|------|----------------------|--------------|-----|------|-----|----|-------------------------------|-----------------------------|
| Sakr | 2008 | surgical | Germany | 327 | 63 | 63 | 36 | PCT, CRP, IL-6, LBP | SSS |
| Scherpereel | 2006 | medical and surgical | Switzerland | 70 | 54 | 59 | 90 | Endocan | SSS |
| Schulte | 2011 | medical and surgical | Switzerland | 78 | 60 | 51 | 54 | PCT, CRP, Peroxiredoxin4 | SSS |
| Selberg | 2000 | medical | Germany | 33 | 48 | 61 | 67 | PCT, CRP, IL-6, C3a, Elastase | SSS |
| Seok | 2012 | medical | Korea | 165 | 63 | 55 | 73 | CRP | SSS |
| Shozushima | 2011 | medical and surgical | Japan | 41 | 62 | 61 | 71 | presepsin | SSS |
| Sierra | 2004 | medical and surgical | Spain | 125 | 49 | 84 | 56 | CRP | SSS |
| Su | 2012 | medical and surgical | China | 144 | 55 | 64 | 58 | CRP | No information |
| Su | 2013 | medical and surgical | China | 130 | 57 | 63 | 77 | PCT, sTREM-1 | SSS |
| Sungurtekin | 2006 | medical and surgical | Turkey | 99 | 59 | | 41 | CRP, C3, C4 | No information |
| Suprin | 2000 | medical and surgical | France | 95 | 57 | 65 | 79 | PCT, CRP | SSS |
| Takahashi | 2014 | medical and surgical | Japan | 456 | 77 | 58 | 79 | PCT, CRP, IL-6, Presepsin | SSS |
| Talebi-Taher | 2014 | --- | Iran | 100 | 76 | 49 | 50 | PCT, CRP, IL-6 | No information |
| Tan | 2016 | medical and surgical | Malaysia | 51 | 54 | 54 | 82 | CD64, sPLA2-IIA | No information |
| Tian | 2014 | neurological | China | 104 | 54 | 64 | 54 | PCT, CRP | SSS |
| Tromp | 2012 | medical | Netherland | 342 | 59 | 57 | 16 | PCT, CRP, IL-6, LBP | No information |
| Tsalik | 2012 | medical and surgical | USA | 336 | 52 | 52 | 74 | PCT, CRP, IL-6 | SSS |
| Tsangaris | 2009 | medical and surgical | Greece | 50 | 63 | 76 | 54 | PCT | SSS |
| Tugrul | 2002 | medical and surgical | Turkey | 85 | 45 | 46 | 88 | PCT, CRP | SSS |
| Ulla | 2013 | medical and surgical | Italy | 189 | 64 | 61 | 56 | PCT, presepsin | SSS |
| Vaschetto | 2008 | unclear | Italy | 56 | 50 | 77 | 48 | osteopontin | Severe sepsis, septic shock |
| Vodnik | 2013 | surgical | Serbia | 60 | 54.4 | 58 | 50 | Presepsin | No information |
| Wang | 2012 | medical and surgical | China | 198 | 60 | 70 | 84 | miR-15a | No information |
| Wang | 2013 | --- | China | 18 | --- | --- | 56 | miR-146a | No information |
| Wanner | 2000 | surgical | Switzerland. | 133 | 40 | 74 | 34 | PCT | No information |
| Xiao | 2015 | medical and surgical | China | 277 | 50 | 49 | 69 | AGP,CRP,PCT | SSS |
| Yousef | 2010 | medical and surgical | Egypt | 74 | 44 | 53 | 54 | leptin | SSS |

SSS: Sepsis, severe sepsis and septic shock; NA, not available.