

## Clinical studies

**Table 22: Studies excluded from the clinical review**

Reference	Reason for exclusion
Abdelaziz 2020 <sup>1</sup>	Incorrect study design
Abdelghani 2020 <sup>2</sup>	Insufficient analysis and incorrect prognostic factor
Abramowitz 2017 <sup>3</sup>	Incorrect population
Abramowitz 2017 <sup>4</sup>	Incorrect prognostic factors
Agasthi 2020 <sup>5</sup>	Insufficient reporting of prognostic factor definitions
Akin 2010 <sup>7</sup>	Incorrect study design - narrative review
Ali 2015 <sup>11</sup>	Incorrect outcome and prognostic factors
Ancona 2017 <sup>12</sup>	Incorrect prognostic factors
Anger 2014 <sup>13</sup>	Incorrect outcome
Annabi 2018 <sup>14</sup>	Incorrect study design - narrative review
Anyanwu 2006 <sup>15</sup>	Incorrect study design - narrative review
Aquaro 2017 <sup>16</sup>	Incorrect study design
Azevedo 2010 <sup>17</sup>	Incorrect prognostic factors
Azzalini 2014 <sup>18</sup>	Incorrect outcome prognostic factors
Balciunaite 2020 <sup>19</sup>	Protocol only
Balciunaite 2020 <sup>20</sup>	Incorrect study design - SR that did not identify many studies identified by this review
Barkagan 2017 <sup>21</sup>	Incorrect outcome and prognostic factors
Becle 2020 <sup>23</sup>	Incorrect prognostic factor: CAD not by CT and thoracic aortic not valve calcium
Bekeredjian 2015 <sup>24</sup>	Incorrect outcome
Berger 2014 <sup>25</sup>	Incorrect study design - narrative review
Bettinger 2017 <sup>26</sup>	Incorrect outcome and prognostic factor
Bing 2019 <sup>27</sup>	Incorrect study design - protocol only and no results published yet
Bing 2020 <sup>28</sup>	Incorrect comparison - infarct LGE vs no or non-infarct
Borger 2004 <sup>29</sup>	Incorrect prognostic factor
Bosmans 2016 <sup>30</sup>	Incorrect outcome
Broyd 2018 <sup>31</sup>	Incorrect population
Buckert 2018 <sup>32</sup>	Incorrect prognostic factor and analysis
Buellesfeld 2014 <sup>33</sup>	Incorrect outcome
Butter 2019 <sup>34</sup>	Incorrect outcome
Calin 2020 <sup>35</sup>	Incorrect study design - narrative review
Capoulade 2015 <sup>36</sup>	Incorrect study design - narrative review

Reference	Reason for exclusion
Carmona 2020 <sup>37</sup>	Incorrect prognostic factors - none matching protocol
Carrabba 2008 <sup>38</sup>	Incorrect population and prognostic factors
Carrero 2019 <sup>39</sup>	Incorrect prognostic factors - none matching protocol
Cavalcante 2017 <sup>41</sup>	Incorrect prognostic factor
Cavalcante 2018 <sup>42</sup>	Incorrect study design - narrative review
Chaikriangkrai 2014 <sup>43</sup>	Incorrect prognostic factor
Chambers 2017 <sup>44</sup>	Incorrect study design - narrative review
Chan 2011 <sup>45</sup>	Incorrect prognostic factors
Chen 2018 <sup>46</sup>	More recent SR available and insufficient reporting of included study characteristics. References checked.
Chew 2018 <sup>47</sup>	Incorrect study design - narrative review
Chew 2019 <sup>48</sup>	Incorrect prognostic factor
Chiang 1998 <sup>49</sup>	Incorrect outcome
Chieffo 2016 <sup>51</sup>	Incorrect prognostic factors
Chieffo 2018 <sup>50</sup>	Incorrect prognostic factors
Chin 2016 <sup>52</sup>	Incorrect prognostic factor
Chin 2017 <sup>53</sup>	Incorrect analysis - unadjusted results only and sufficient studies with multivariate results for this prognostic factor
Cho 2017 <sup>54</sup>	Incorrect prognostic factor
Choi 2020 <sup>55</sup>	Incorrect prognostic factors - none matching protocol
Chourdakis 2018 <sup>56</sup>	Incorrect study design - narrative review
Ciobotaru 2016 <sup>58</sup>	Incorrect outcome
Cioffi 2011 <sup>59</sup>	Incorrect prognostic factors
Citro 2018 <sup>60</sup>	Incorrect study design - protocol only and no results published.
Clavel 2015 <sup>61</sup>	Incorrect prognostic factors
Connelly 2017 <sup>64</sup>	Incorrect study design - narrative review
Cortes 2016 <sup>65</sup>	Incorrect prognostic factors and outcome
Czepluch 2016 <sup>66</sup>	Incorrect prognostic factor and outcomes
Dahya 2016 <sup>69</sup>	Incorrect prognostic factor and outcomes
Damluji 2020 <sup>70</sup>	Incorrect prognostic factors - none matching protocol
D'Ancona 2017 <sup>67</sup>	Incorrect comparison
D'Arcy 2011 <sup>68</sup>	Abstract only
Delgado 2018 <sup>71</sup>	Incorrect study design - narrative review
Della Corte 2019 <sup>72</sup>	Incorrect study design - narrative review
Dencker 2016 <sup>73</sup>	Incorrect prognostic factor and outcome
Di Martino 2015 <sup>74</sup>	Incorrect outcome
Di Pasquale 2017 <sup>75</sup>	Incorrect study design - narrative review
Diab 2008 <sup>76</sup>	Incorrect study design - narrative review
Dichtl 2008 <sup>77</sup>	Incorrect prognostic factor
Dinh 2010 <sup>78</sup>	Incorrect prognostic factor
Dobson 2016 <sup>79</sup>	Incorrect outcome
Duncan 2012 <sup>80</sup>	Incorrect study design - narrative review
Dvir 2013 <sup>81</sup>	Incorrect study design - narrative review
Dvir 2017 <sup>82</sup>	Incorrect population and study design

Reference	Reason for exclusion
Dweck 2013 <sup>83</sup>	Incorrect study design - narrative review
Eberhard 2017 <sup>85</sup>	Incorrect prognostic factor
Emerson 2015 <sup>86</sup>	Incorrect prognostic factor
Escarcega 2016 <sup>87</sup>	Incorrect prognostic factor
Ewe 2011 <sup>89</sup>	Incorrect outcome
Ferreira-Neto 2019 <sup>90</sup>	Incorrect prognostic factor
Feuchtner 2006 <sup>92</sup>	Incorrect outcome
Feuchtner 2013 <sup>91</sup>	Incorrect outcome
Feyz 2018 <sup>93</sup>	Incorrect population and prognostic factor
Flett 2012 <sup>95</sup>	Incorrect outcome
Fonseca 2016 <sup>96</sup>	Incorrect outcomes
Fraccaro 2011 <sup>97</sup>	Incorrect outcome
Fujimiya 2019 <sup>98</sup>	Incorrect outcomes
Fukui 2020 <sup>99</sup>	Incorrect prognostic factors
Fusini 2015 <sup>100</sup>	Incorrect study design and prognostic factors
Galvao Braga 2014 <sup>101</sup>	Not in English language
Gegenava 2020 <sup>102</sup>	Incorrect prognostic factors - none matching protocol
Gelfand 2007 <sup>104</sup>	Incorrect study design - narrative review
Gelfand 2010 <sup>103</sup>	Insufficient reporting of prognostic analysis
Girdauskas 2017 <sup>105</sup>	Incorrect outcome
Goenka 2014 <sup>106</sup>	Incorrect study design - narrative review
Guerrero 2016 <sup>107</sup>	Incorrect study design:
Haensig 2012 <sup>109</sup>	Incorrect prognostic factor
Haensig 2016 <sup>108</sup>	Incorrect outcome
Hallett 2016 <sup>110</sup>	Incorrect study design - narrative review
Hamdan 2015 <sup>111</sup>	Incorrect prognostic factors and outcomes
Hansson 2016 <sup>112</sup>	Incorrect prognostic factors and outcomes
Hansson 2017 <sup>113</sup>	Incorrect prognostic factors and study design
Harbaoui 2016 <sup>114</sup>	Incorrect prognostic factor
Harris 2017 <sup>115</sup>	Incorrect population
Hayashida 2012 <sup>116</sup>	Incorrect study design and prognostic factors
Hein-Rothweiler 2017 <sup>117</sup>	Incorrect outcome
Herrmann 2011 <sup>119</sup>	Incorrect study design and prognostic factors
Hiendlmayr 2016 <sup>120</sup>	Incorrect study design - narrative review
Holy 2020 <sup>121</sup>	Incorrect prognostic factors - none matching protocol
Huther 2011 <sup>122</sup>	Incorrect population
Hwang 2017 <sup>124</sup>	Incorrect prognostic factors and outcome
Hwang 2020 <sup>125</sup>	Incorrect prognostic factors - none matching protocol
Jabbour 2011 <sup>126</sup>	Incorrect prognostic factor and outcomes
Jilaihawi 2014 <sup>128</sup>	Incorrect outcome
Jilaihawi 2016 <sup>127</sup>	Incorrect prognostic factors

Reference	Reason for exclusion
Kaleschke 2011 <sup>129</sup>	Incorrect study design - narrative review
Kammerlander 2019 <sup>130</sup>	Incorrect population
Kaneko 2017 <sup>131</sup>	Incorrect outcome
Khaliq 2014 <sup>132</sup>	Incorrect outcome
Kim 2018 <sup>133</sup>	Incorrect prognostic factor
Kim 2018 <sup>135</sup>	Incorrect study design - narrative review
Kim 2020 <sup>134</sup>	Incorrect prognostic factors - none matching protocol
Kinnel 2020 <sup>136</sup>	Incorrect prognostic factors - none matching protocol
Kitkungvan 2018 <sup>137</sup>	Incorrect prognostic factors and outcomes
Ko 2020 <sup>138</sup>	Incorrect prognostic factors and outcomes
Kochman 2016 <sup>139</sup>	Incorrect prognostic factors and outcomes
Koh 2015 <sup>141</sup>	Incorrect outcome
Kong 2016 <sup>142</sup>	Incorrect outcome
Koos 2011 <sup>143</sup>	Incorrect outcome
Koos 2013 <sup>144</sup>	Insufficient data reported
Kumar 2010 <sup>145</sup>	Incorrect study design - narrative review
Kusunose 2017 <sup>146</sup>	Incorrect prognostic factors
Kwon 2016 <sup>147</sup>	Incorrect prognostic factors
Laissy 2011 <sup>148</sup>	Incorrect study design - narrative review
Lancellotti 2017 <sup>149</sup>	Incorrect study design - narrative review
Lantelme 2019 <sup>150</sup>	Incorrect prognostic factors
Larroche 2020 <sup>151</sup>	Incorrect prognostic factor
Latsios 2010 <sup>153</sup>	Incorrect outcomes
Leber 2013 <sup>154</sup>	Incorrect prognostic factor
Lee 2020 <sup>156</sup>	Incorrect analysis - unadjusted results only for prognostic factors matching protocol and sufficient studies with multivariate results for this prognostic factor
Lella 2015 <sup>157</sup>	Incorrect population <50% HVD and not stratified
Lindsay 2015 <sup>159</sup>	Incorrect prognostic factors
Liu 2017 <sup>160</sup>	Incorrect study design - protocol only and no results published
Liu 2019 <sup>161</sup>	Incorrect study design - narrative review
Maeno 2017 <sup>163</sup>	Incorrect prognostic factor
Malahfji 2019 <sup>164</sup>	Incorrect study design - narrative review
Mamane 2016 <sup>165</sup>	Incorrect prognostic factor
Markowiak 2019 <sup>166</sup>	Incorrect prognostic factor and outcomes
Marwan 2013 <sup>167</sup>	Incorrect outcome
Masri 2016 <sup>168</sup>	Incorrect prognostic factor
Masri 2016 <sup>169</sup>	Incorrect population
Massaro 2016 <sup>170</sup>	Incorrect outcome
Massera 2019 <sup>171</sup>	Incorrect study design, prognostic factors and outcomes
Matsumoto 2014 <sup>172</sup>	Incorrect prognostic factor
Matsushita 2020 <sup>173</sup>	Incorrect prognostic factors and outcomes
Mehta 2017 <sup>174</sup>	Incorrect study design - narrative review

Reference	Reason for exclusion
Mejean 2016 <sup>175</sup>	Incorrect outcome and prognostic factors
Merten 2013 <sup>176</sup>	Incorrect study design
Messika-Zeitoun 2004 <sup>177</sup>	Incorrect population
Michelena 2015 <sup>178</sup>	Incorrect study design - narrative review
Mistiaen 2004 <sup>179</sup>	Incorrect prognostic factors and outcome
Mohty 2013 <sup>180</sup>	Incorrect prognostic factors
Mojazi-Amiri 2013 <sup>181</sup>	Incorrect study design - narrative review
Mok 2016 <sup>182</sup>	Incorrect prognostic factors
Mordi 2015 <sup>183</sup>	Incorrect population
Morosin 2017 <sup>184</sup>	Incorrect prognostic factors
Mrsic 2019 <sup>185</sup>	Incorrect study design - narrative review
Musa 2016 <sup>186</sup>	Incorrect study design - narrative review
Musa 2016 <sup>10</sup>	Incorrect prognostic factors
Musa 2017 <sup>188</sup>	Incorrect analysis - unadjusted results only and sufficient studies with multivariate results for this prognostic factor
Myerson 2012 <sup>189</sup>	Incorrect study design - narrative review
Mylotte 2014 <sup>192</sup>	Incorrect prognostic factor
Nadjiri 2016 <sup>193</sup>	Incorrect prognostic factor
Naoum 2017 <sup>194</sup>	Incorrect study design - narrative review
Natarajan 2017 <sup>195</sup>	Incorrect study design - narrative review
Nchimi 2018 <sup>197</sup>	Systematic review - references checked
Neisius 2020 <sup>198</sup>	Incorrect outcome
Nigri 2006 <sup>200</sup>	Incorrect study design - narrative review
Nigri 2006 <sup>201</sup>	Incorrect study design
Ochiai 1999 <sup>203</sup>	Incorrect study design
Oh 2020 <sup>204</sup>	Incorrect prognostic factors - none matching protocol
Okuno 2020 <sup>205</sup>	Incorrect prognostic factors - none matching protocol
O'Neal 2015 <sup>202</sup>	Incorrect population
Orme 2014 <sup>206</sup>	Incorrect prognostic factors
Paknikar 2016 <sup>207</sup>	Incorrect prognostic factor
Papanastasiou 2020 <sup>208</sup>	Systematic review - references checked
Park 2014 <sup>209</sup>	Incorrect outcomes
Park 2018 <sup>210</sup>	Incorrect prognostic factor and outcome
Podlesnikar 2018 <sup>214</sup>	Incorrect study design - narrative review
Pohle 2004 <sup>215</sup>	Incorrect population
Pollari 2019 <sup>216</sup>	Incorrect outcomes
Pollari 2020 <sup>217</sup>	Incorrect prognostic factors and outcomes
Possner 2016 <sup>218</sup>	Incorrect prognostic factors
Prabhakar 2020 <sup>219</sup>	Narrative review - references checked
Pulignano 2017 <sup>220</sup>	Incorrect study design - narrative review
Putra 2019 <sup>221</sup>	Incorrect prognostic factor

Reference	Reason for exclusion
Quarto 2012 <sup>222</sup>	Incorrect analysis - unadjusted results only and sufficient studies with multivariate results for this prognostic factor
Raggi 2011 <sup>223</sup>	Incorrect population
Rajani 2014 <sup>224</sup>	Incorrect study design - narrative review
Raju 2019 <sup>226</sup>	Incorrect prognostic factors - none matching protocol
Ramana 2019 <sup>227</sup>	Incorrect study design
Rangarajan 2016 <sup>228</sup>	Incorrect population and prognostic factor
Reddy 2017 <sup>229</sup>	Incorrect study design
Reinders 2015 <sup>230</sup>	Incorrect outcomes, prognostic factors and insufficient reporting
Reinthaler 2015 <sup>231</sup>	Incorrect prognostic factor
Revilla-Orodea 2016 <sup>232</sup>	Incorrect population
Ribeiro 2016 <sup>233</sup>	Incorrect study design
Rodrigues 2016 <sup>234</sup>	Incorrect prognostic factors
Rodriguez-Olivares 2016 <sup>235</sup>	Incorrect prognostic factor and outcome
Rosenhek 2000 <sup>236</sup>	Incorrect prognostic factors
Rozenbaum 2019 <sup>238</sup>	Incorrect prognostic factor
Rozenbaum 2020 <sup>237</sup>	Incorrect prognostic factors - none matching protocol
Rys 2018 <sup>239</sup>	Incorrect outcome
Saji 2016 <sup>240</sup>	Incorrect prognostic factor
Sakrana 2016 <sup>241</sup>	Incorrect outcome
Sales Mda 2014 <sup>242</sup>	Incorrect prognostic factor
Sanati 2017 <sup>243</sup>	Incorrect prognostic factor and outcomes
Schymik 2017 <sup>244</sup>	Incorrect prognostic factors
Seiffert 2016 <sup>245</sup>	Incorrect prognostic factor and outcomes
Seldrum 2019 <sup>246</sup>	Insufficient reporting of prognostic variable definition for MR; incorrect prognostic factor and outcome for AR
Shah 2014 <sup>247</sup>	Incorrect prognostic factor
Shen 2020 <sup>248</sup>	Incorrect prognostic factors - none matching protocol
Shimizu 2015 <sup>249</sup>	Incorrect population
Showkathali 2015 <sup>250</sup>	Incorrect prognostic factor
Sigvardsen 2018 <sup>251</sup>	Incorrect prognostic factor
Singh 2013 <sup>252</sup>	Incorrect prognostic factors
Singh 2017 <sup>253</sup>	Incorrect prognostic factors
Soulat 2017 <sup>254</sup>	Incorrect study design and outcomes
Souza 2016 <sup>255</sup>	Incorrect prognostic factor
Spaziano 2018 <sup>256</sup>	Incorrect prognostic factor
Stahli 2015 <sup>257</sup>	Incorrect prognostic factor and outcome
Stahli 2015 <sup>258</sup>	Incorrect study design and prognostic factor
Staniloae 2019 <sup>259</sup>	Incorrect study design
Steadman 2012 <sup>260</sup>	Incorrect outcomes

Reference	Reason for exclusion
Stundl 2020 <sup>261</sup>	No prognostic data
Suh 2019 <sup>262</sup>	Incorrect prognostic factors - none matching protocol
Suh 2019 <sup>263</sup>	Incorrect outcome
Szekely 2020 <sup>264</sup>	Incorrect prognostic factors - none matching protocol
Szilveszter 2020 <sup>265</sup>	Incorrect prognostic factors - none matching protocol
Takami 2016 <sup>266</sup>	Incorrect prognostic factor
Takeda 2011 <sup>267</sup>	Incorrect prognostic factors and insufficient reporting
Taniguchi 2020 <sup>268</sup>	Incorrect prognostic factors and outcomes
Tokuda 2020 <sup>269</sup>	Incorrect prognostic factors - none matching protocol
Treibel 2016 <sup>270</sup>	Incorrect prognostic factors
Tsang 2012 <sup>271</sup>	Incorrect population
Tsutsumi 2016 <sup>272</sup>	Incorrect outcome
Tzemos 2008 <sup>273</sup>	Incorrect population and prognostic factors
Uretsky 2020 <sup>274</sup>	Incorrect prognostic factors and outcomes
Vahanian 2010 <sup>276</sup>	Incorrect study design - narrative review
Valenti 2015 <sup>277</sup>	Incorrect prognostic variable and outcome
Valkov 2016 <sup>278</sup>	Incorrect study design - narrative review
van Kesteren 2017 <sup>280</sup>	Incorrect prognostic factor
van Kesteren 2018 <sup>279</sup>	Incorrect outcome
van Mourik 2019 <sup>281</sup>	Incorrect prognostic factor
Velu 2019 <sup>282</sup>	Incorrect prognostic factor
Watanabe 2015 <sup>283</sup>	Incorrect prognostic factors
Weidemann 2009 <sup>284</sup>	Insufficient reporting
Weissman 2009 <sup>285</sup>	Incorrect study design - narrative review
Wenaweser 2011 <sup>286</sup>	Incorrect prognostic factors
Wong 2013 <sup>287</sup>	Incorrect population, outcome and prognostic factor
Yanagisawa 2017 <sup>288</sup>	Incorrect prognostic factor
Yanagisawa 2019 <sup>289</sup>	Incorrect prognostic factor and outcome
Yildirim 2007 <sup>290</sup>	Incorrect study design - no follow-up of patient outcomes
Zamorano 2019 <sup>292</sup>	Not in English language
Zhan 2020 <sup>293</sup>	Incorrect prognostic factors: none listed in protocol
Zhang 2020 <sup>294</sup>	Incorrect population - already had intervention
Zhu 2015 <sup>295</sup>	Incorrect analysis - correlation only