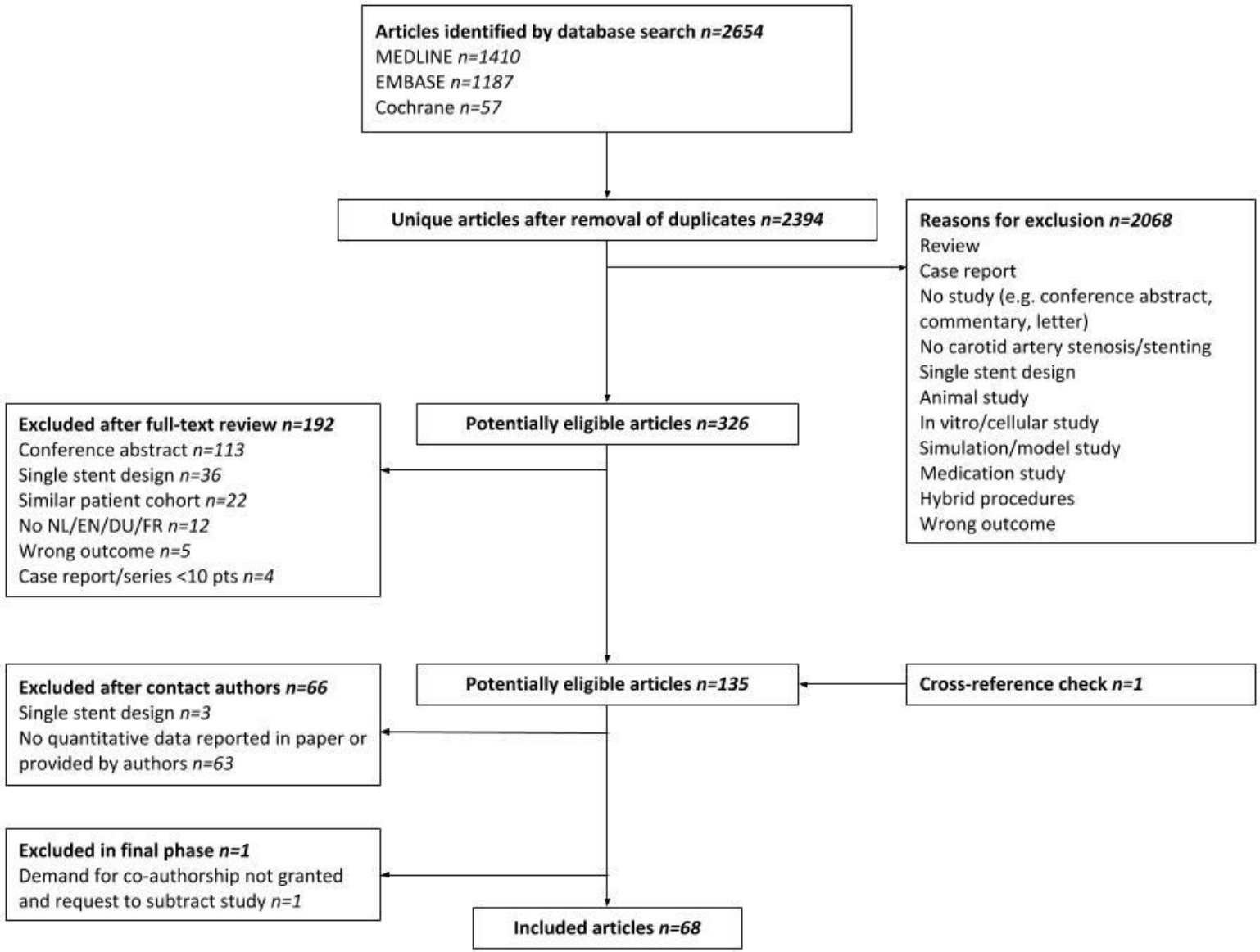


**Figure 1. Flowchart showing selection of articles for review.**

| *design 1 vs design 2* | N studies | N patients | N events (total) *design 1* | N events (total) *design 2* | RR (95% CI) | $I^2$ | *P*-value |
|---|---|---|---|---|---|---|---|
| **OPEN vs CLOSED CELL** | | | | | | | |
| 30-day any stroke/death | 40 | 33621 | 648 (18110) | 482 (15511) | 1.00 (0.76 - 1.31) | 64% | 0.99 |
| 1-year any stroke/death | 5 | 690 | 31 (343) | 37 (347) | 0.57 (0.31 - 1.03) | 12% | 0.06 |
| new DWI lesions | 8 | 925 | 217 (635) | 88 (290) | 1.25 (1.02 - 1.54) | 0% | **0.03** |
| restenosis | 15 | 6567 | 132 (2635) | 124 (3932) | 0.96 (0.56 - 1.63) | 63% | 0.87 |
| stent fracture | 4 | 597 | 12 (310) | 11 (287) | 0.73 (0.28 - 1.90) | 0% | 0.52 |
| intraprocedural hypotension | 7 | 2334 | 245 (1038) | 107 (1296) | 1.53 (0.75 - 3.12) | 83% | 0.24 |
| intraprocedural bradycardia | 4 | 1851 | 161 (742) | 113 (1109) | 1.47 (0.46 - 4.63) | 85% | 0.51 |
| **HYBRID vs OPEN CELL** | | | | | | | |
| 30-day any stroke/death | 10 | 4182 | 20 (1370) | 76 (2821) | 1.02 (0.59 - 1.77) | 15% | 0.93 |
| **HYBRID vs CLOSED CELL** | | | | | | | |
| 30-day any stroke/death | 13 | 5987 | 33 (1488) | 90 (4499) | 1.38 (0.73 - 2.63) | 27% | 0.32 |

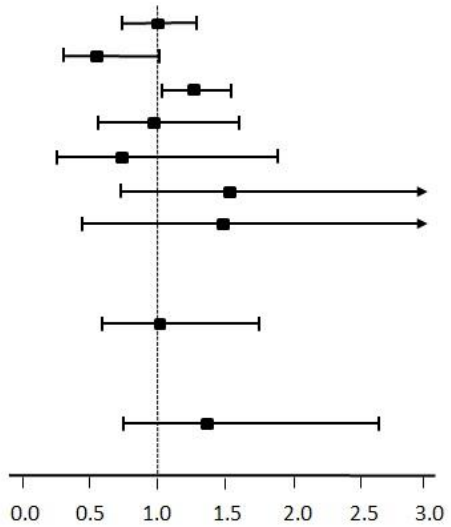


**Figure 2. Overview of pooled RRs of 11 meta-analyses performed on stent design in relation to adverse outcome after CAS.**

| | | N studies | N patients | N events (total) | | RR (95% CI) | $I^2$ | *P*-value |
|---|---|---|---|---|---|---|---|---|
| *stent 1* | *stent 2* | | | *stent 1* | *stent 2* | | | |
| **OPEN vs CLOSED CELL** | | | | | | | | |
| Acculink | Wallstent | 12 | 6519 | 50 (1524) | 102 (4995) | 1.51 (1.05 - 2.26) | 0% | **0.03** |
| Acculink | Xact | 15 | 15418 | 256 (8595) | 207 (6823) | 0.92 (0.71 - 1.20) | 11% | 0.55 |
| Precise | Wallstent | 17 | 7414 | 67 (2032) | 112 (5382) | 1.22 (0.80 - 1.85) | 21% | 0.35 |
| Precise | Xact | 14 | 9137 | 167 (4584) | 106 (4553) | 1.55 (1.21 - 1.98) | 0% | **<0.001** |
| Protégé | Wallstent | 10 | 5099 | 14 (569) | 76 (4530) | 1.45 (0.81 - 2.60) | 0% | 0.22 |
| Protégé | Xact | 10 | 1447 | 16 (675) | 11 (772) | 1.34 (0.62 - 2.88) | 0% | 0.46 |
| **BOTH OPEN OR CLOSED CELL** | | | | | | | | |
| Acculink | Precise | 13 | 8835 | 99 (4195) | 173 (4640) | 0.95 (0.61 - 1.49) | 42% | 0.84 |
| Acculink | Protégé | 6 | 1397 | 22 (957) | 11 (440) | 1.02 (0.43 - 2.43) | 11% | 0.97 |
| Precise | Protégé | 9 | 1852 | 41 (1323) | 13 (529) | 0.95 (0.50 - 1.79) | 0% | 0.87 |
| Wallstent | Xact | 11 | 5581 | 77 (4691) | 16 (890) | 0.97 (0.53 - 1.75) | 8% | 0.91 |

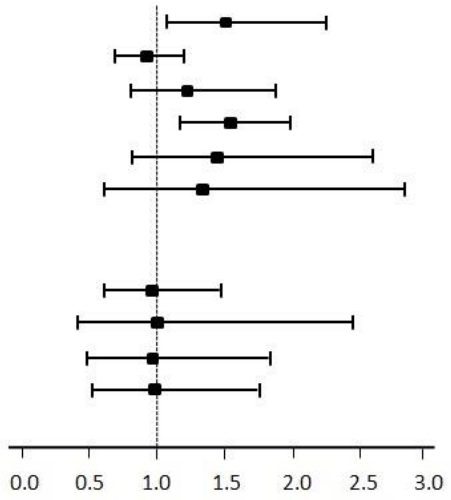


**Figure 3. Overview of pooled RRs of the 30-day MAE rate for individual stents. Stent comparisons are separated in terms of open vs closed cell stents, or two stents with the same open or closed design.**

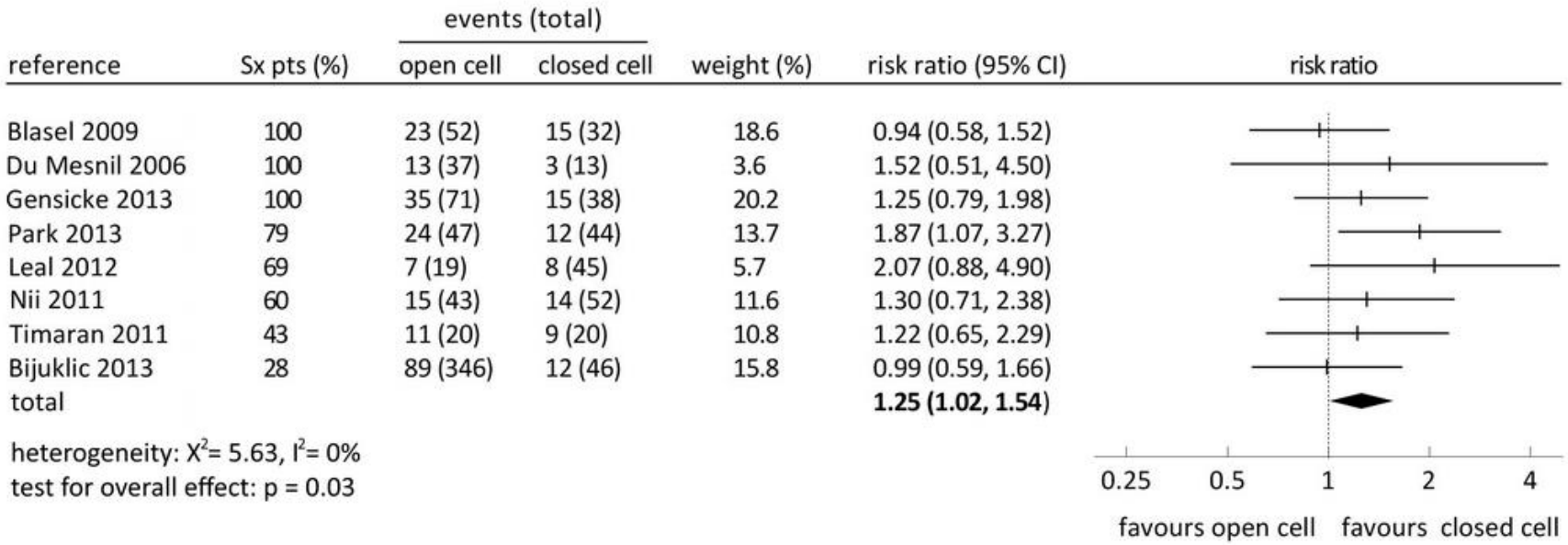


**Figure 4. Difference in number of patients with any new MR-DWI detected ischemic brain lesion, between patients treated with open or closed cell stents. Studies are listed in order of declining percentage of symptomatic patients. Risk ratios are shown with 95% confidence intervals.** The diamond in the forest plot indicates the total risk ratio and confidence interval; pts = patients; CI = confidence interval; MR-DWI: magnetic resonance-diffusion weighted imaging; Sx = symptomatic.