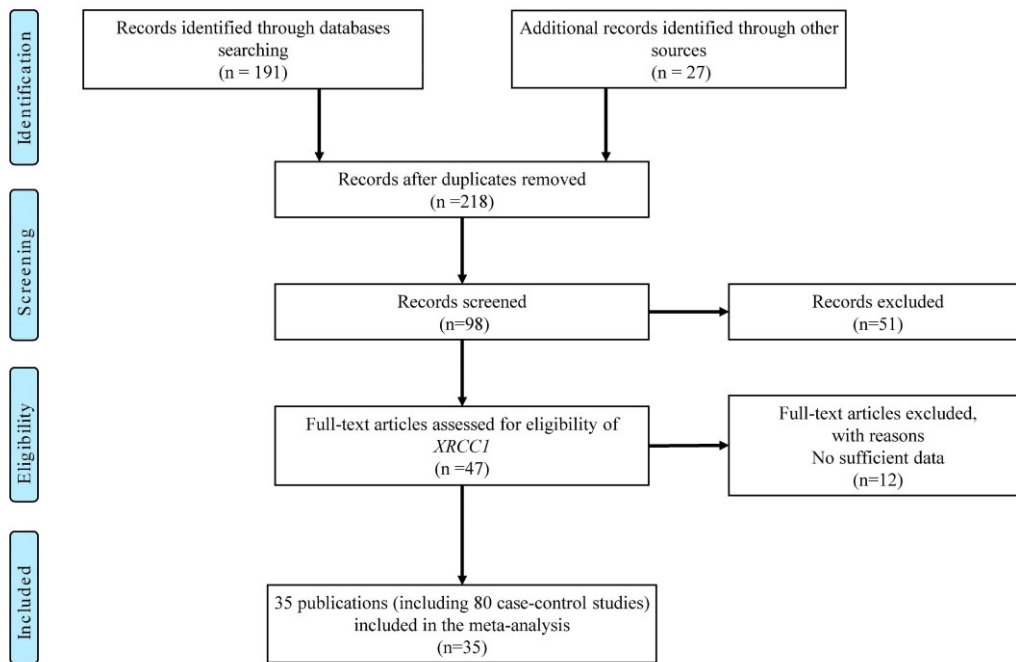


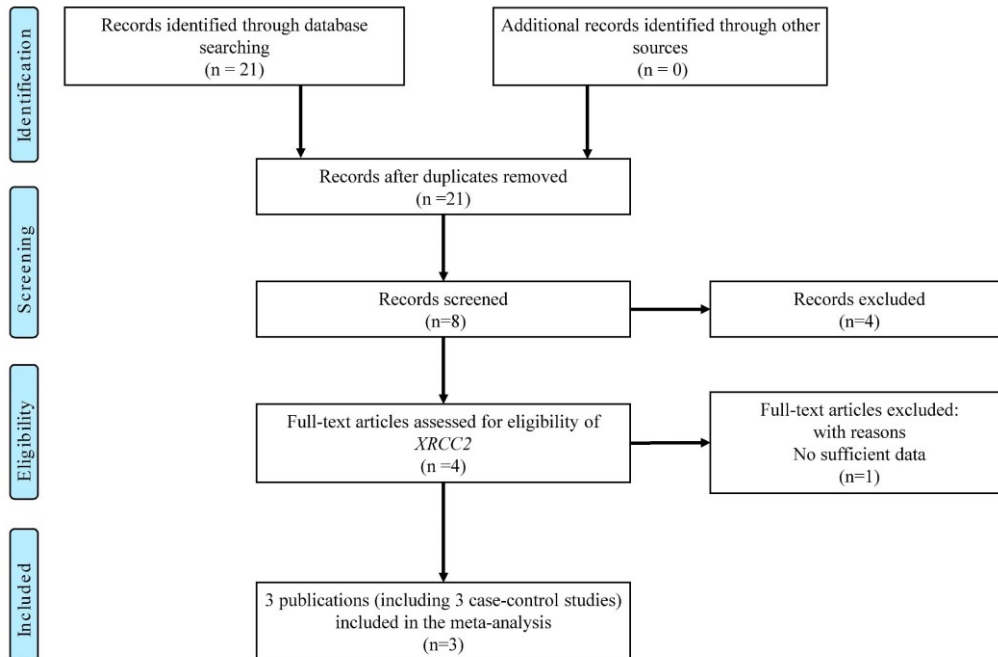
**Supplementary figure 1. Flow chart of studies selection process for polymorphisms in *XRCC1***

**genes.**

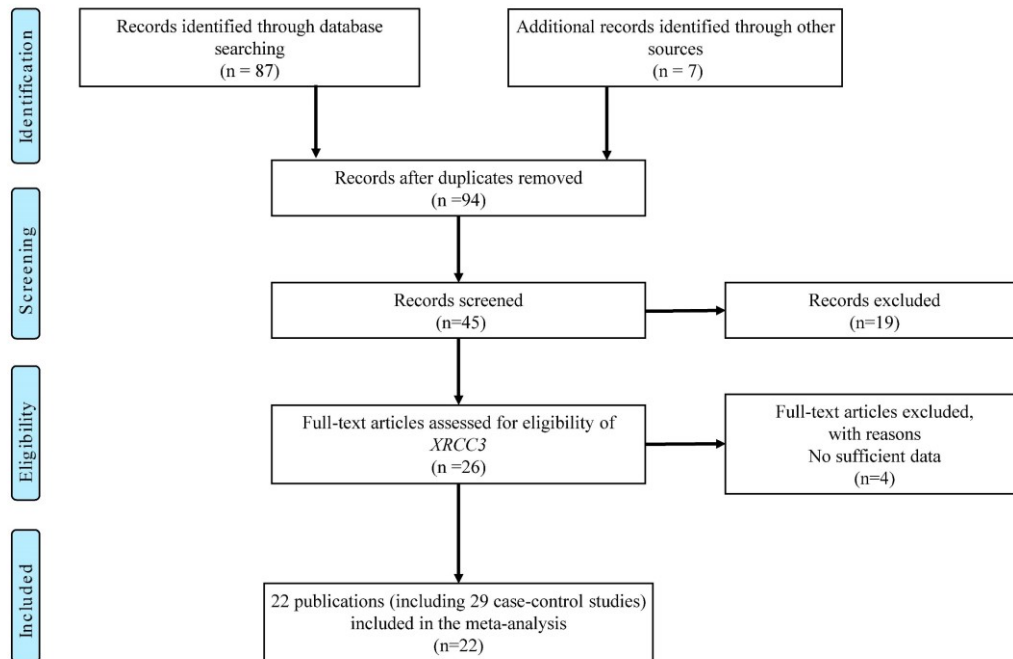


**Supplementary figure 2. Flow chart of studies selection process for polymorphisms in *XRCC2***

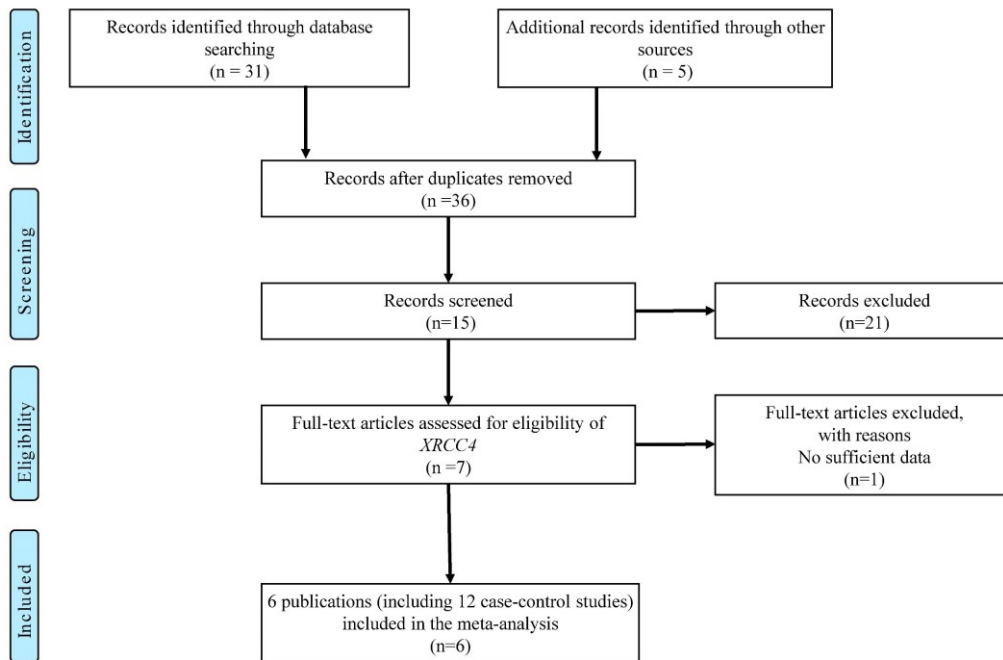
**genes.**



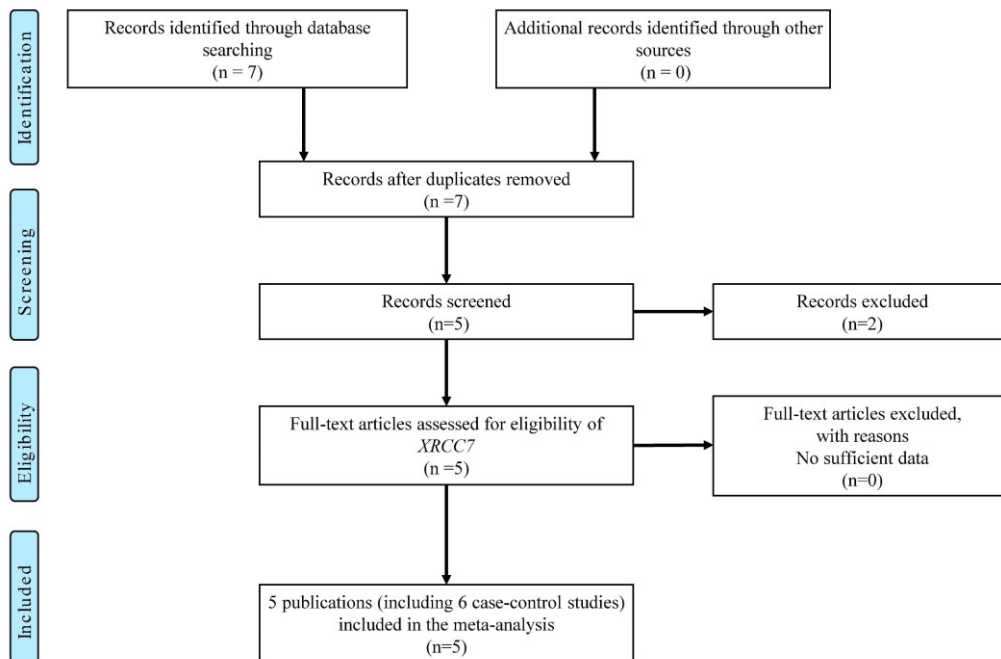
**Supplementary figure 3. Flow chart of studies selection process for polymorphisms in *XRCC3* genes.**



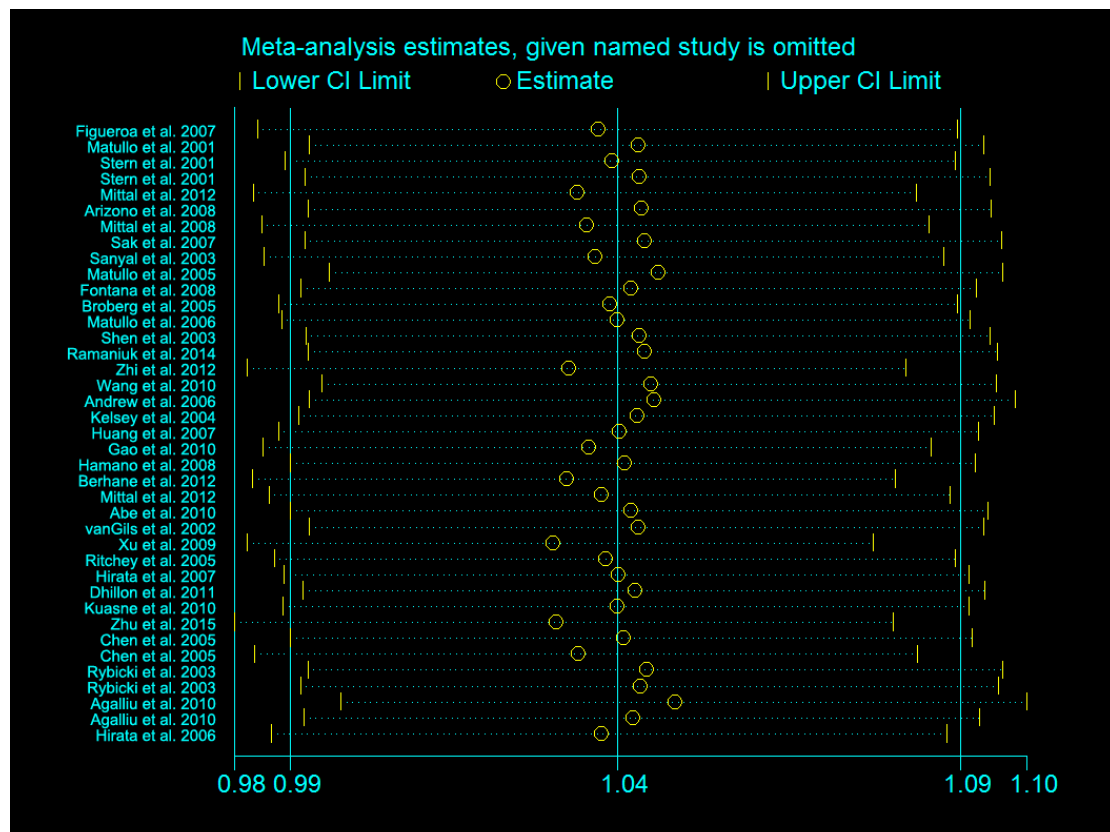
**Supplementary figure 4. Flow chart of studies selection process for polymorphisms in *XRCC4* genes.**



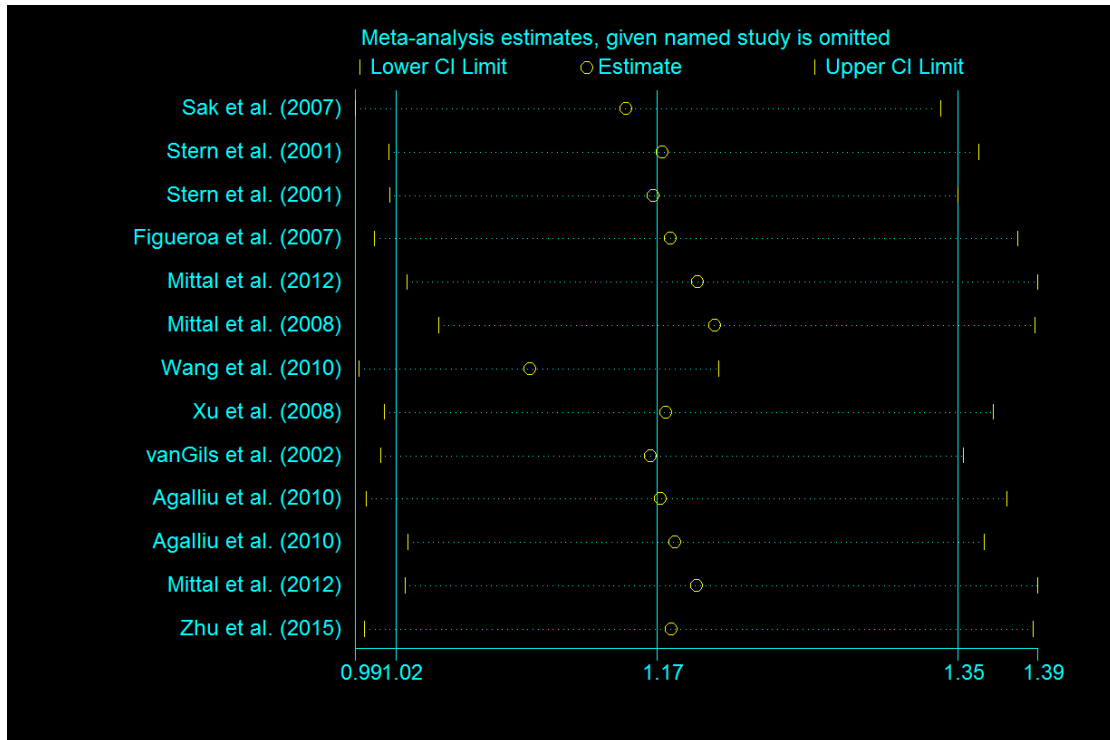
**Supplementary figure 5. Flow chart of studies selection process for polymorphisms in *XRCC7* genes.**



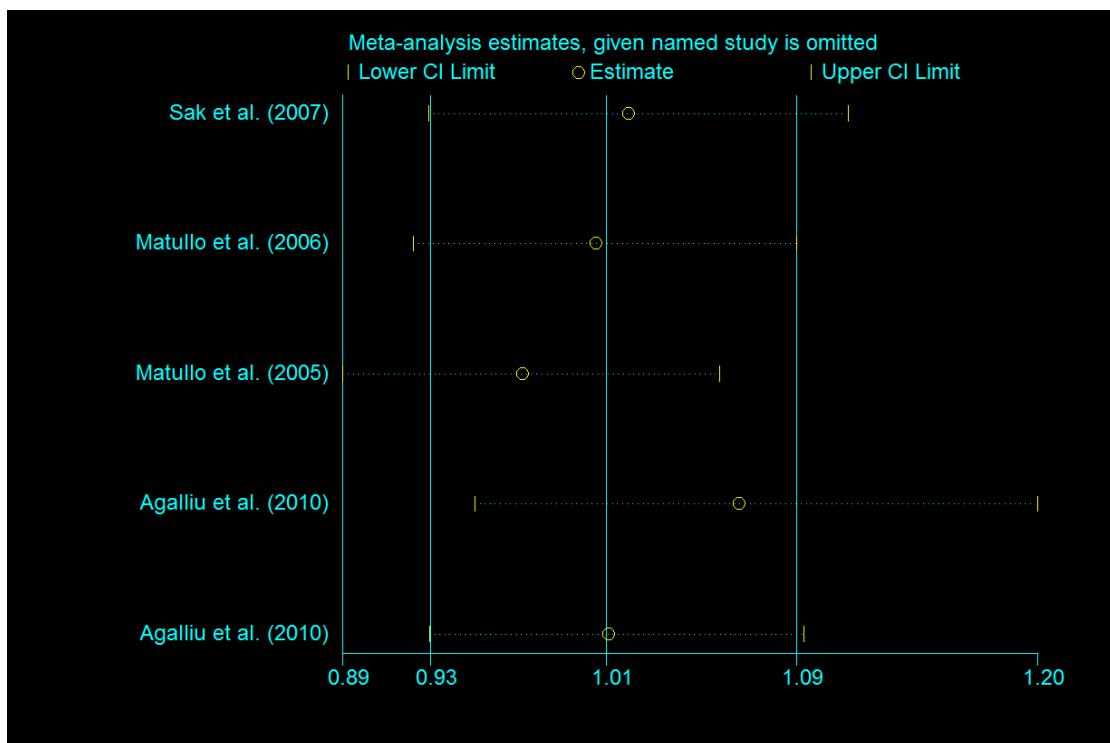
**Supplementary figure 6. Sensitivity analysis for *XRCC1*-rs25487 polymorphism and the risk of urological neoplasms (allelic comparison B vs. A).**



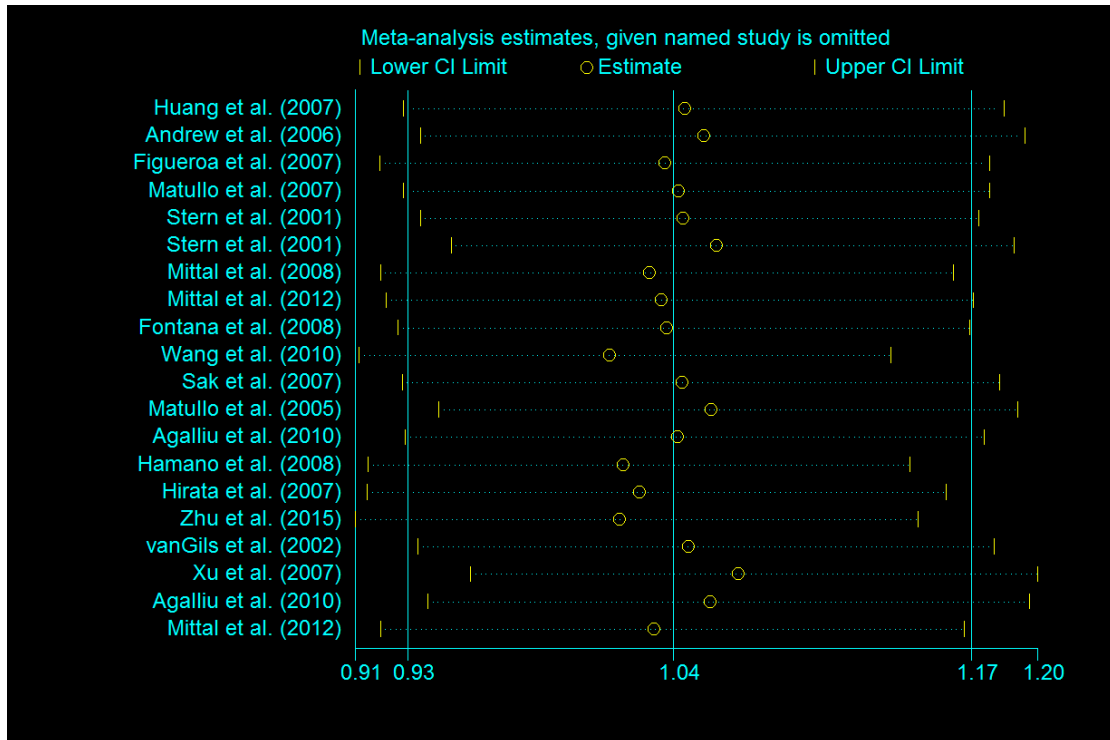
Supplementary figure 7. Sensitivity analysis for *XRCCI*-rs25489 polymorphism and the risk of urological neoplasms (allelic comparison B vs. A).



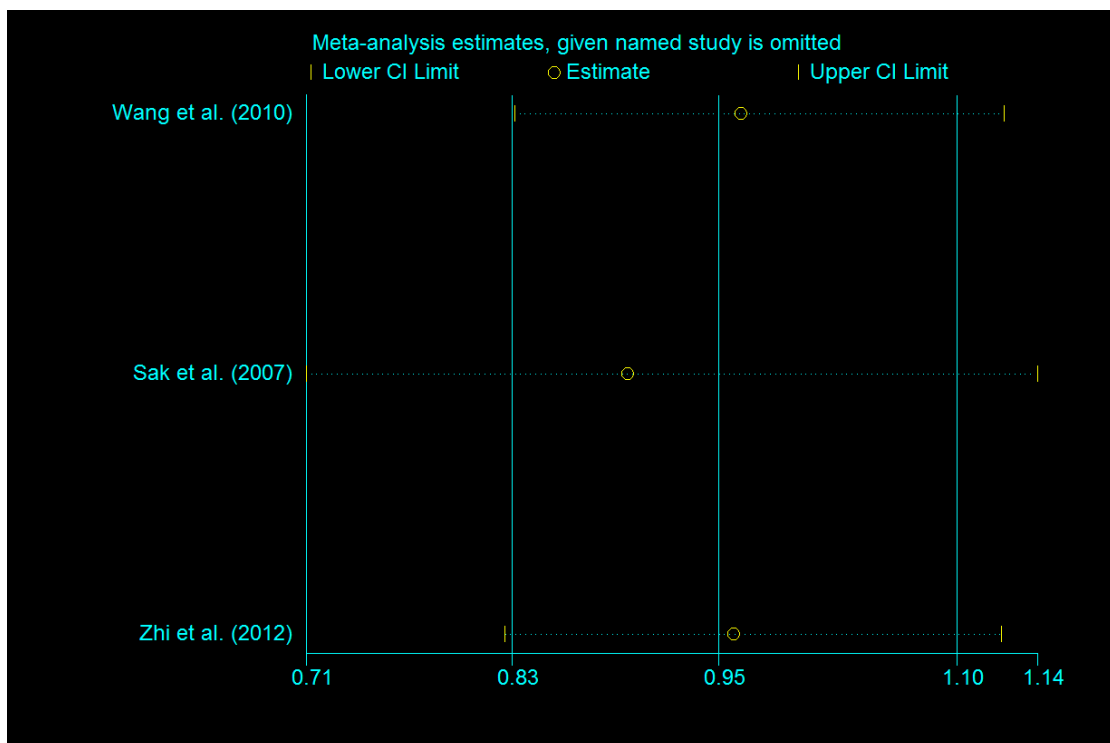
Supplementary figure 8. Sensitivity analysis for *XRCCI*-rs915927 polymorphism and the risk of urological neoplasms (allelic comparison B vs. A).



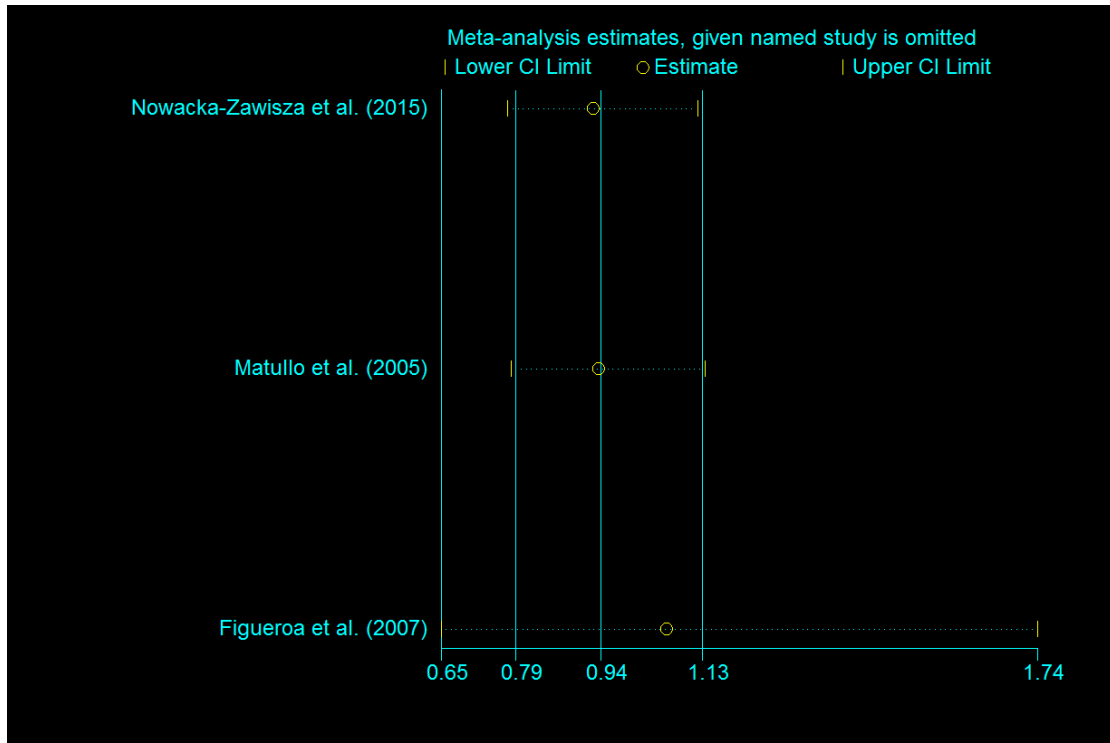
Supplementary figure 9. Sensitivity analysis for *XRCC1*-rs1799782 polymorphism and the risk of urological neoplasms (allelic comparison B vs. A).



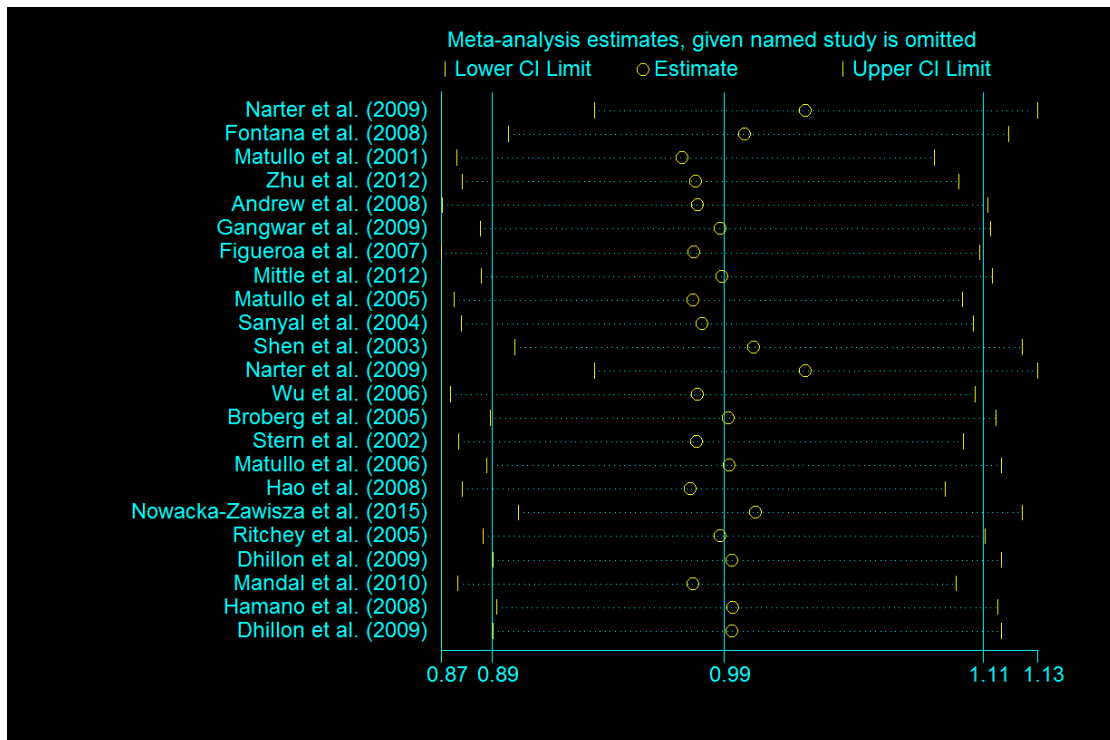
Supplementary figure 10. Sensitivity analysis for *XRCC1*-rs3213245 polymorphism and the risk of urological neoplasms (allelic comparison B vs. A).



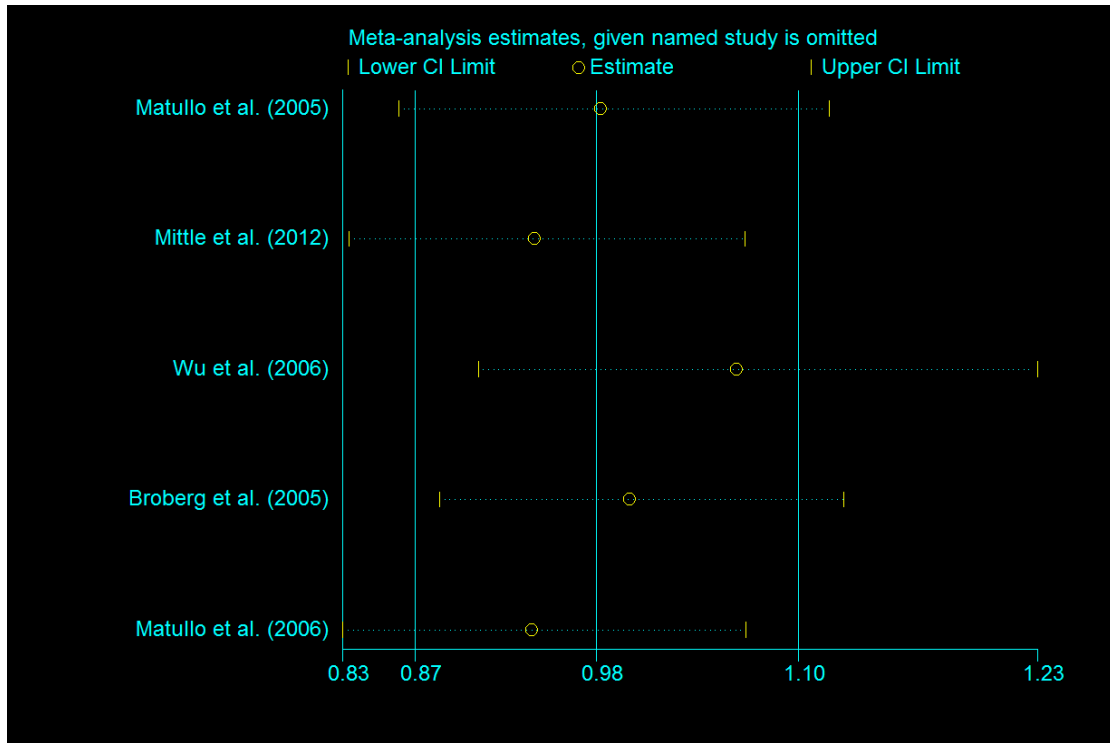
Supplementary figure 11. Sensitivity analysis for *XRCC2*-rs3218536 polymorphism and the risk of urological neoplasms (allelic comparison B vs. A).



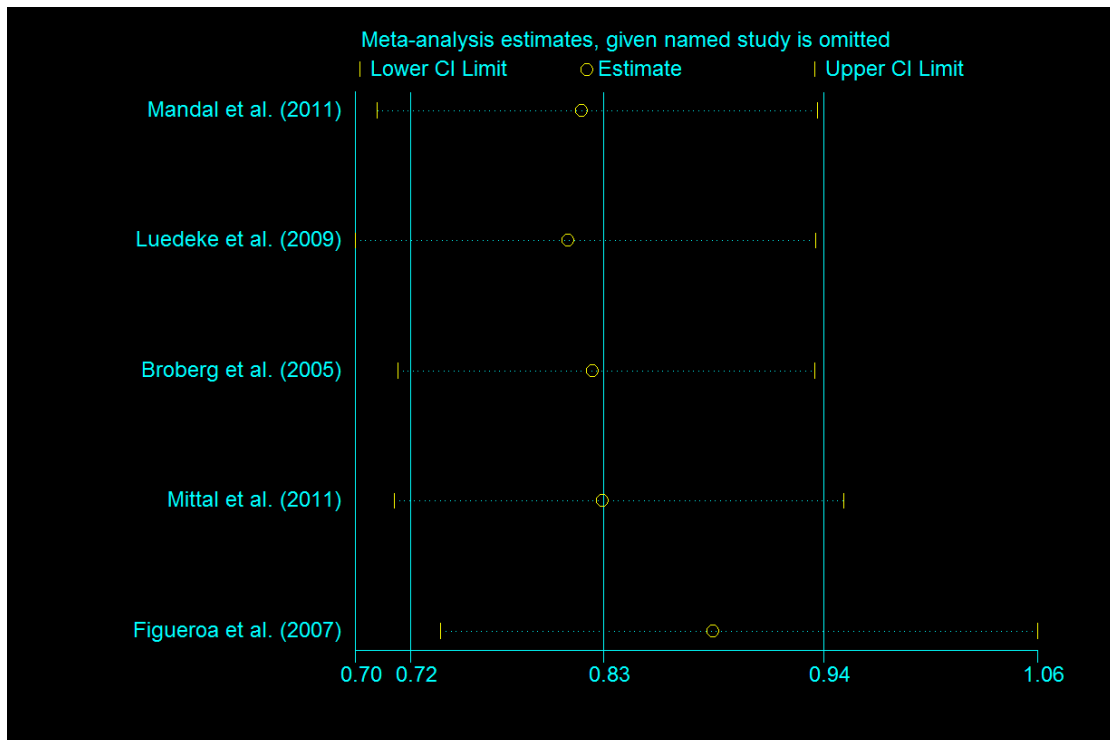
Supplementary figure 12. Sensitivity analysis for *XRCC3*-rs861539 polymorphism and the risk of urological neoplasms (allelic comparison B vs. A).



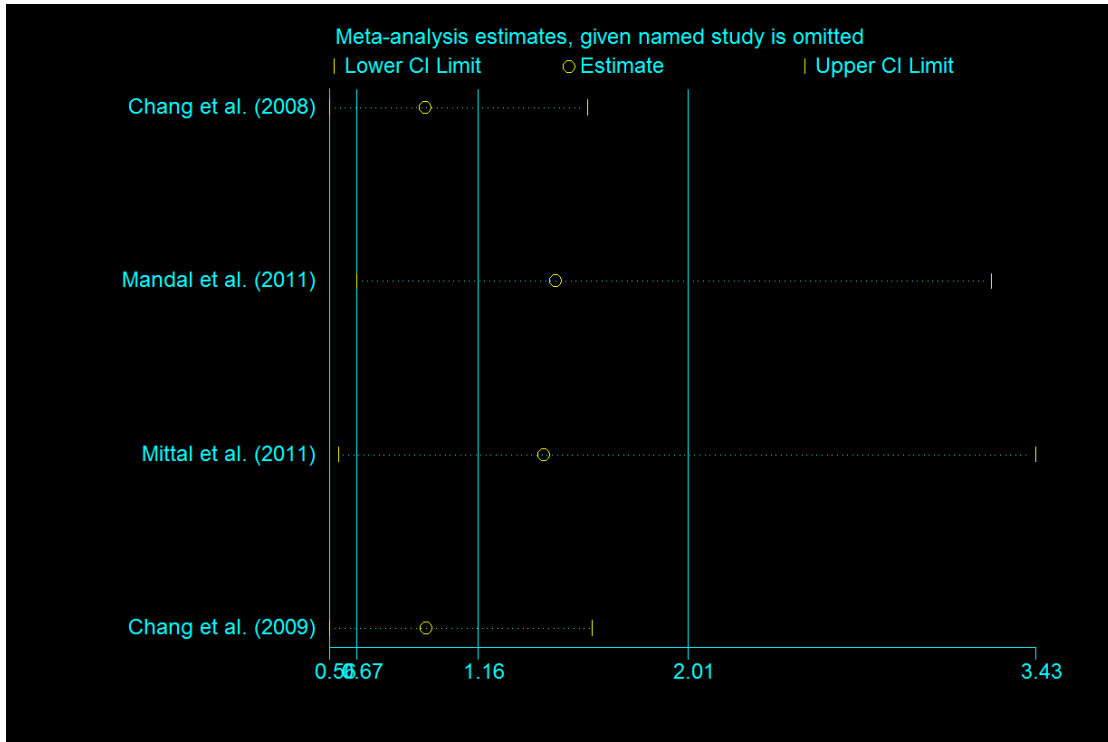
Supplementary figure 13. Sensitivity analysis for *XRCC3*-rs1799796 polymorphism and the risk of urological neoplasms (allelic comparison B vs. A).



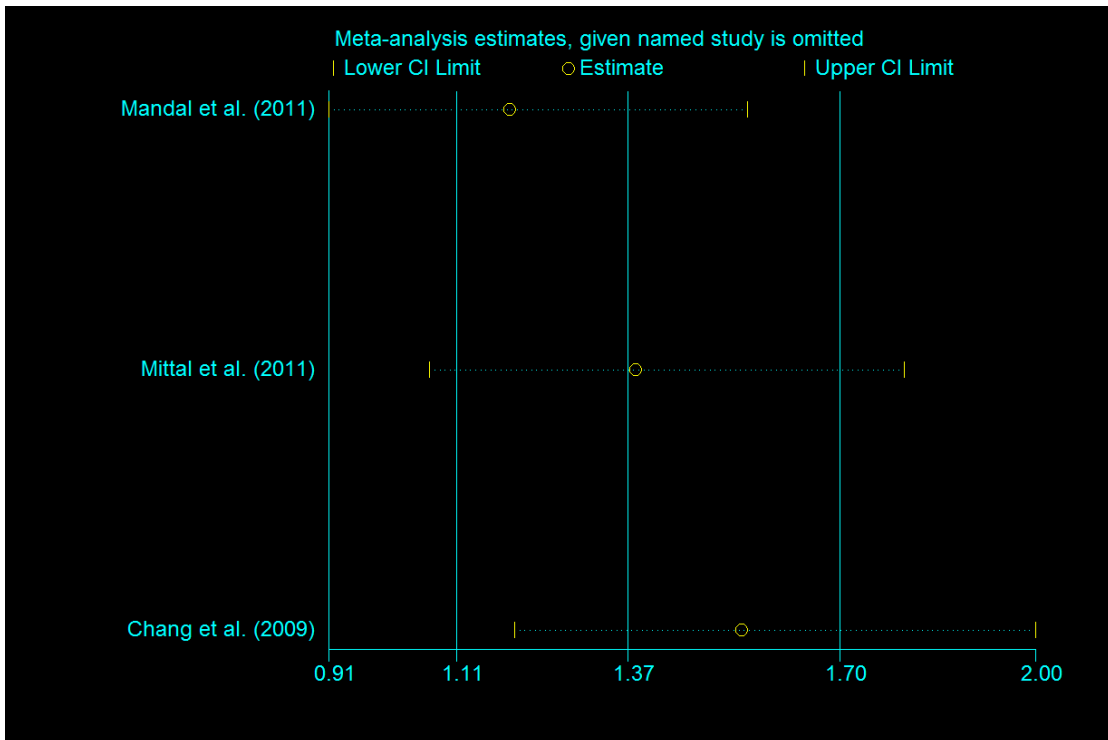
Supplementary figure 14. Sensitivity analysis for *XRCC4*-rs1805377 polymorphism and the risk of urological neoplasms (allelic comparison B vs. A).



Supplementary figure 15. Sensitivity analysis for *XRCC4*-rs6869366 polymorphism and the risk of urological neoplasms (allelic comparison B vs. A).

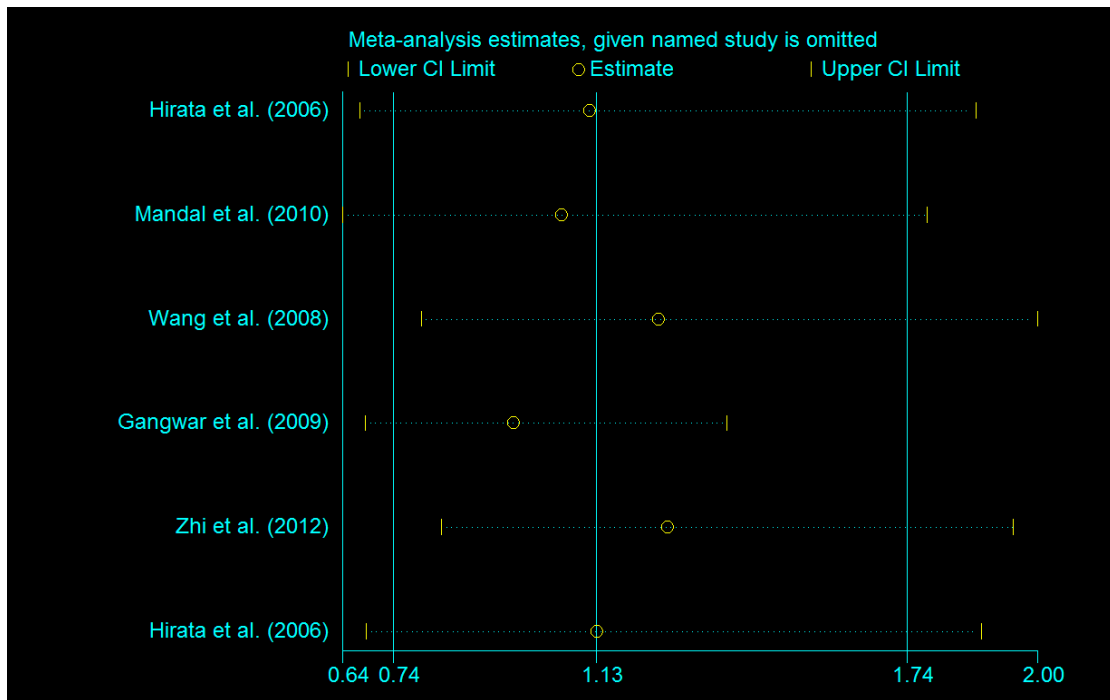


Supplementary figure 16. Sensitivity analysis for *XRCC4*-rs28360071 polymorphism and the risk of urological neoplasms (allelic comparison B vs. A).

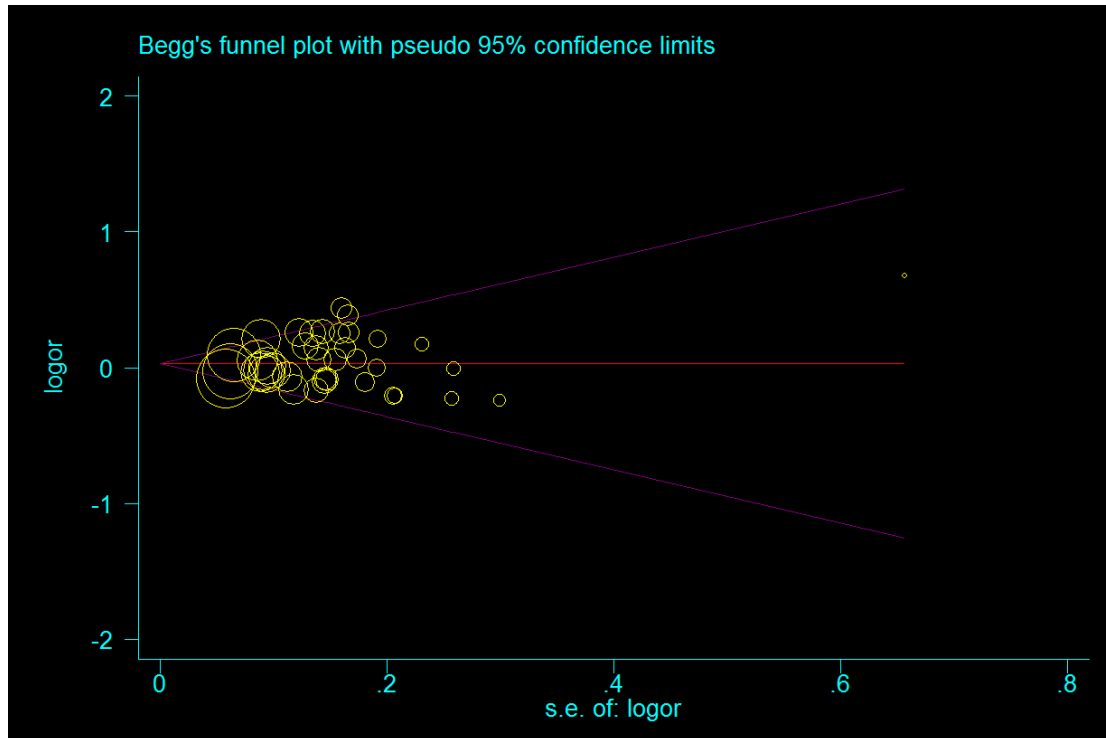




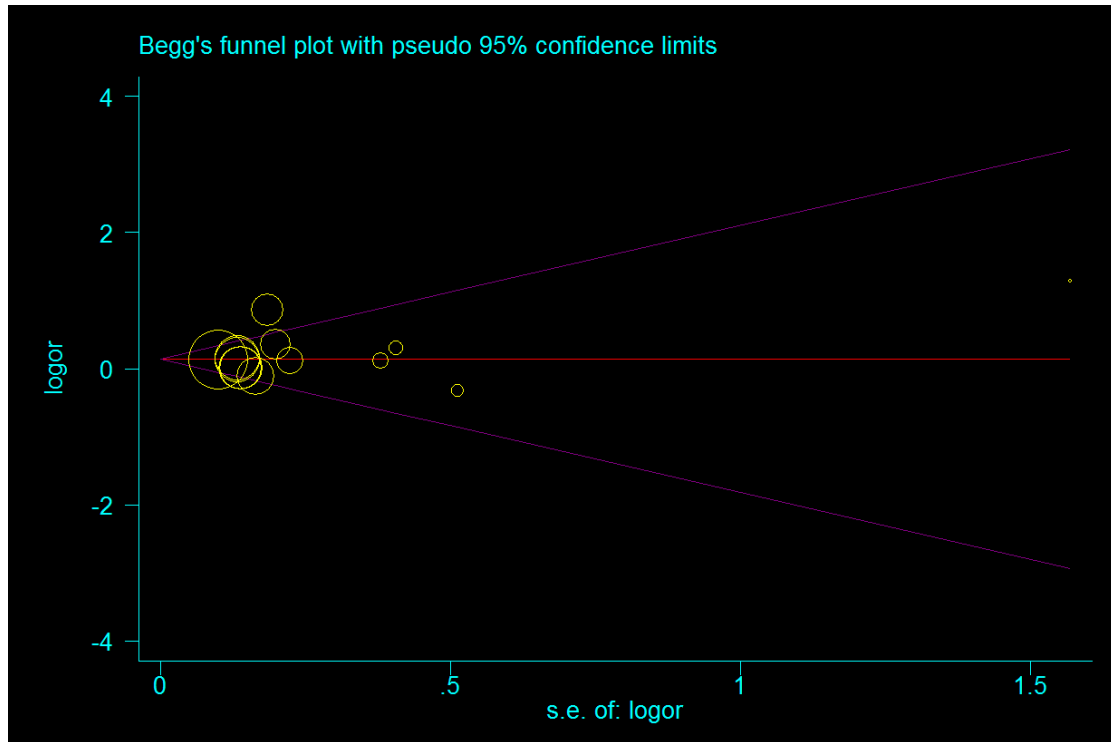
Supplementary figure 17. Sensitivity analysis for XRCC7-rs7003908 polymorphism and the risk of urological neoplasms (allelic comparison B vs. A).



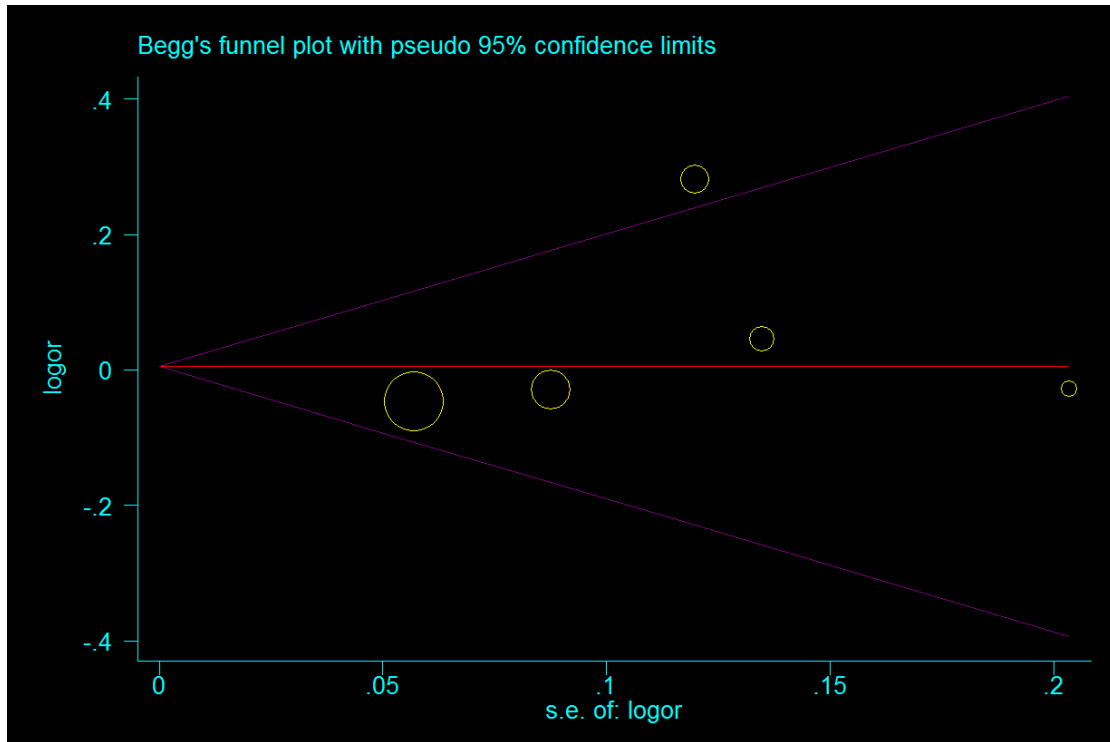
**Supplementary figure 18. Begg's funnel plot for publication bias under *XRCCI*-rs25487 polymorphism (allelic comparison B vs. A).** The x-axis log (OR) and the y-axis is natural logarithm of OR. The horizontal line in the figure represents the overall estimated log (OR). The two diagonal lines indicate the pseudo 95% confidence limits of the effect estimate. Log (OR) = log-transformed OR, OR = odds ratio.



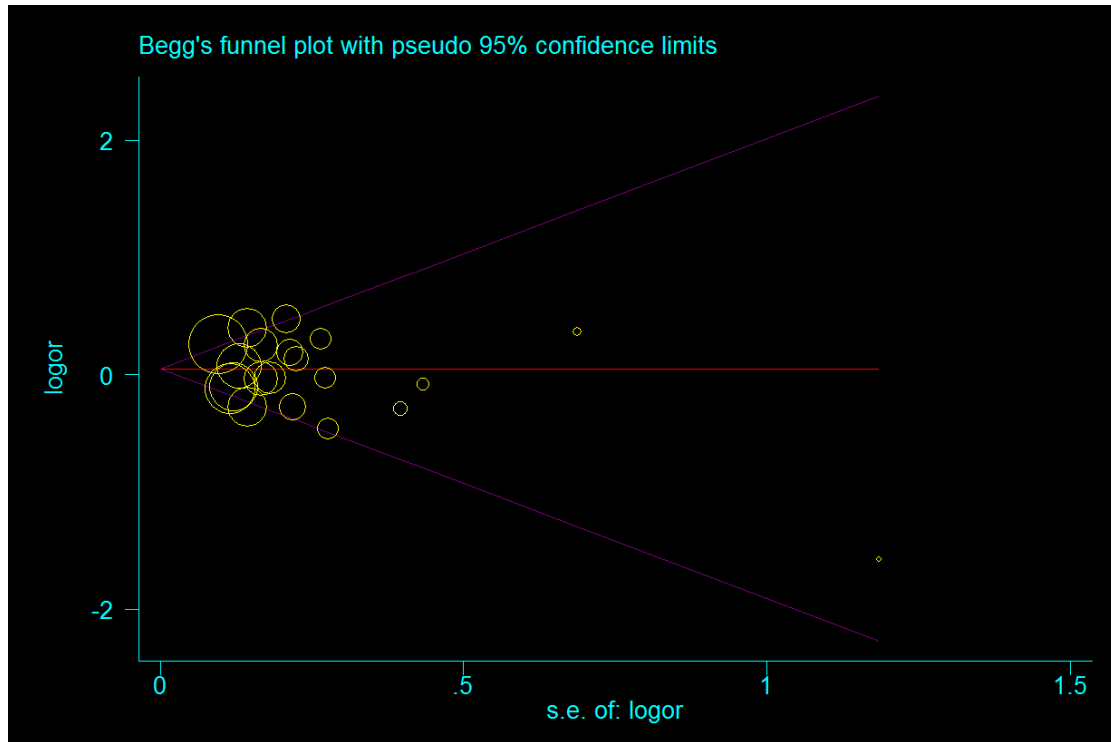
**Supplementary figure 19. Begg's funnel plot for publication bias under *XRCCI*-rs25489 polymorphism (allelic comparison B vs. A).** The x-axis log (OR) and the y-axis is natural logarithm of OR. The horizontal line in the figure represents the overall estimated log (OR). The two diagonal lines indicate the pseudo 95% confidence limits of the effect estimate. Log (OR) = log-transformed OR, OR = odds ratio.



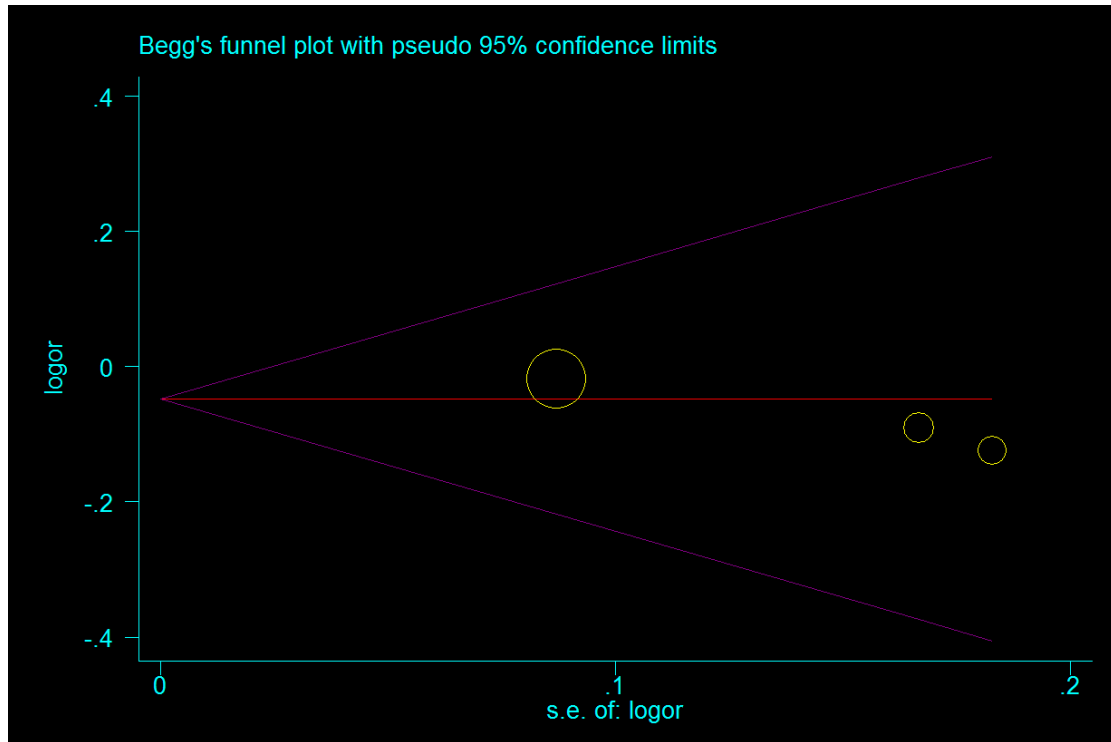
**Supplementary figure 20. Begg's funnel plot for publication bias under XRCCI-rs915927 polymorphism (allelic comparison B vs. A).** The x-axis log (OR) and the y-axis is natural logarithm of OR. The horizontal line in the figure represents the overall estimated log (OR). The two diagonal lines indicate the pseudo 95% confidence limits of the effect estimate. Log (OR) = log-transformed OR, OR = odds ratio.



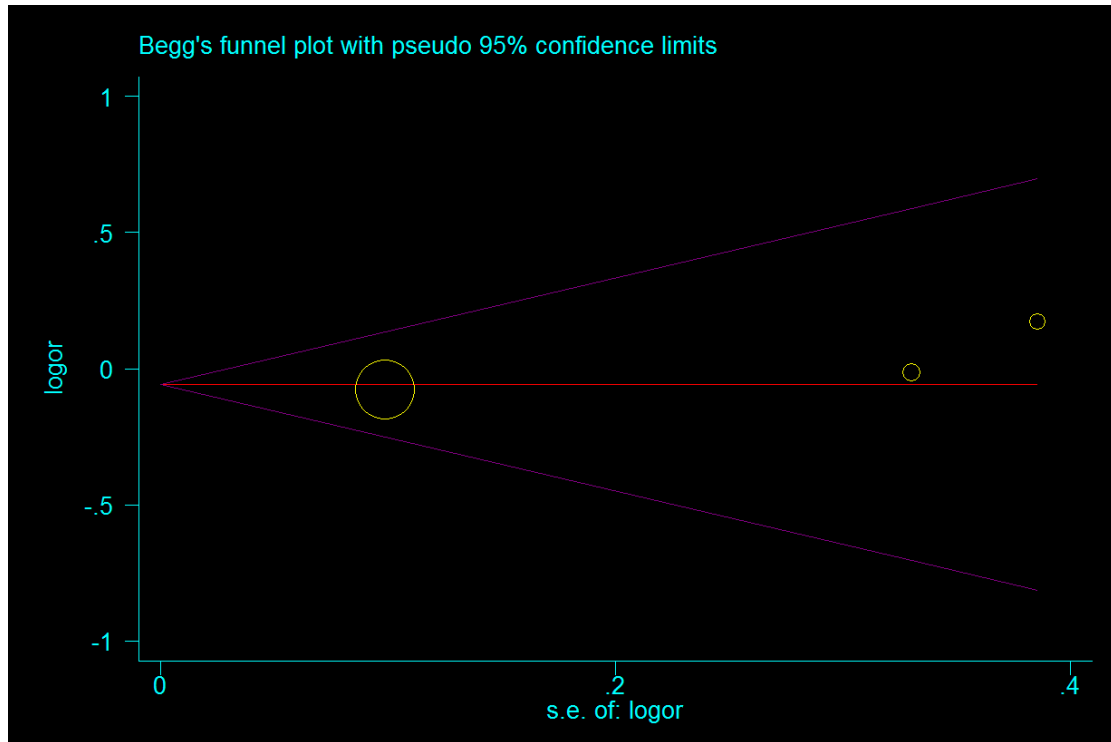
**Supplementary figure 21. Begg's funnel plot for publication bias under XRCCI-rs1799782 polymorphism (allelic comparison B vs. A).** The x-axis log (OR) and the y-axis is natural logarithm of OR. The horizontal line in the figure represents the overall estimated log (OR). The two diagonal lines indicate the pseudo 95% confidence limits of the effect estimate. Log (OR) = log-transformed OR, OR = odds ratio.



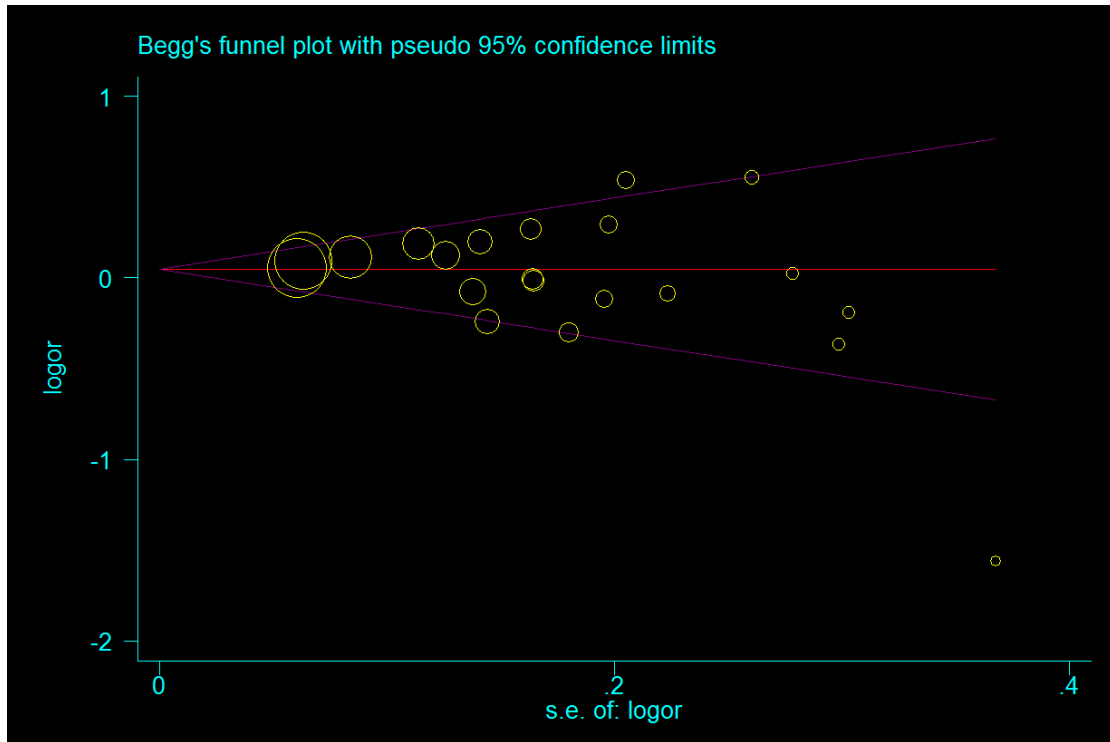
**Supplementary figure 22. Begg's funnel plot for publication bias under XRCCI-rs3213245 polymorphism (allelic comparison B vs. A).** The x-axis log (OR) and the y-axis is natural logarithm of OR. The horizontal line in the figure represents the overall estimated log (OR). The two diagonal lines indicate the pseudo 95% confidence limits of the effect estimate. Log (OR) = log-transformed OR, OR = odds ratio.



**Supplementary figure 23. Begg's funnel plot for publication bias under XRCC2-rs3218536 polymorphism (allelic comparison B vs. A).** The x-axis log (OR) and the y-axis is natural logarithm of OR. The horizontal line in the figure represents the overall estimated log (OR). The two diagonal lines indicate the pseudo 95% confidence limits of the effect estimate. Log (OR) = log-transformed OR, OR = odds ratio.

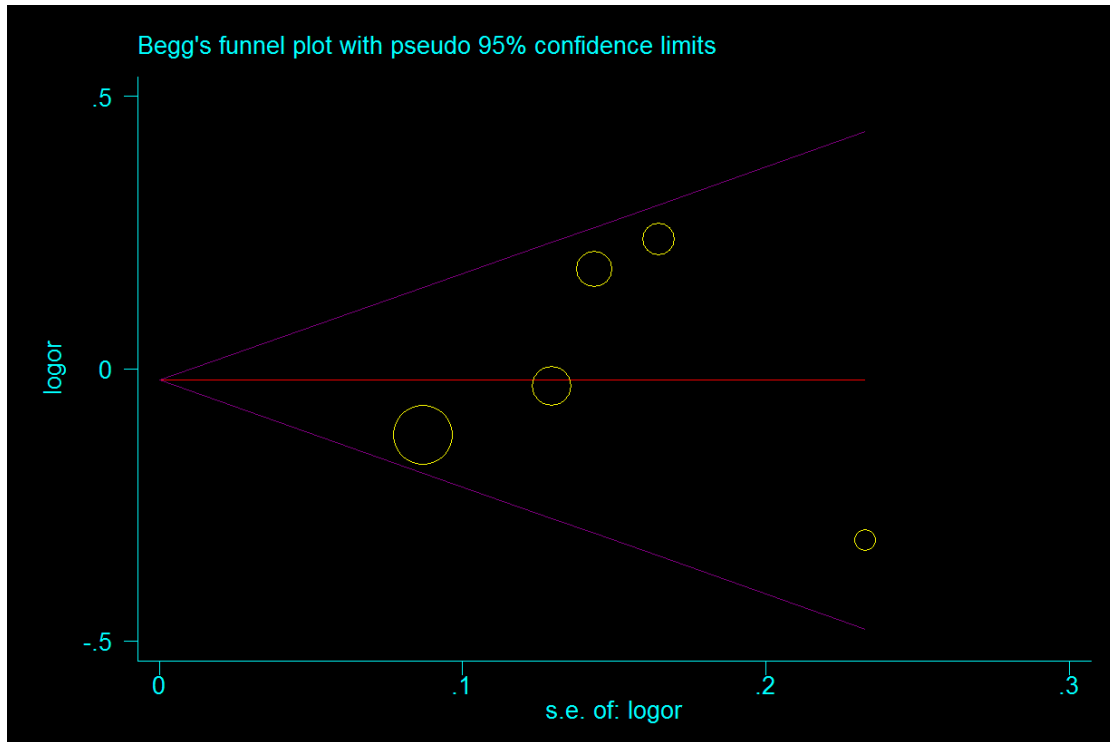


**Supplementary figure 24. Begg's funnel plot for publication bias under XRCC3-rs861539 (allelic comparison B vs. A).** The x-axis log (OR) and the y-axis is natural logarithm of OR. The horizontal line in the figure represents the overall estimated log (OR). The two diagonal lines indicate the pseudo 95% confidence limits of the effect estimate. Log (OR) = log-transformed OR, OR = odds ratio.

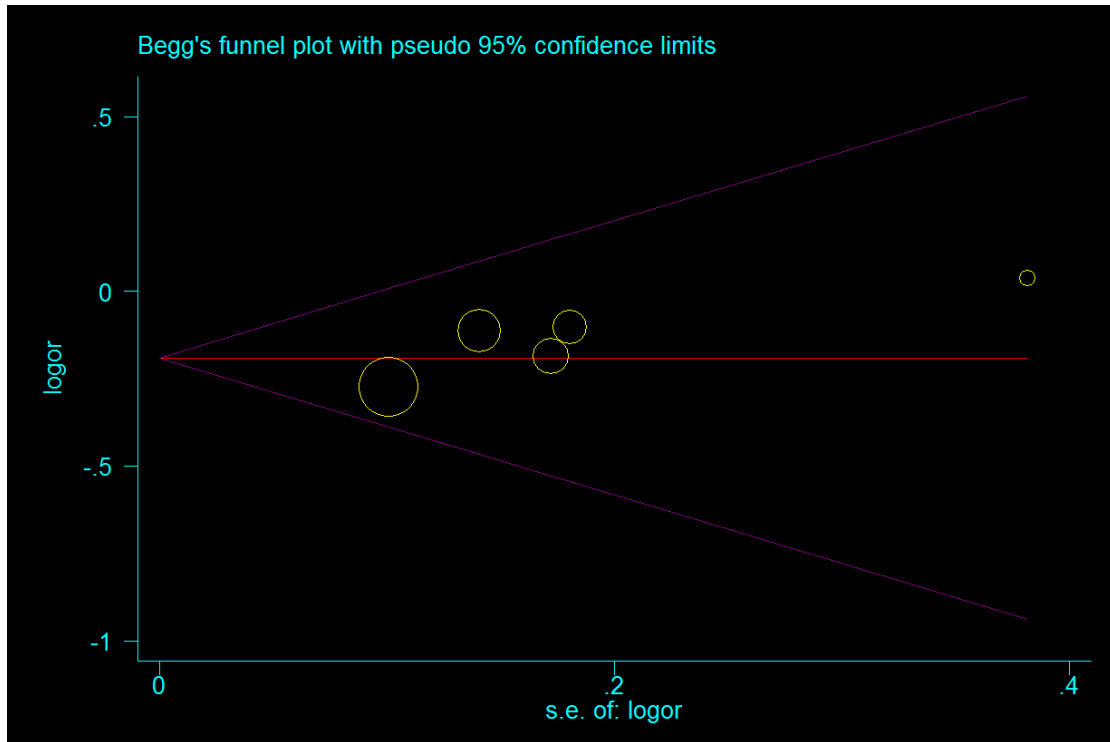




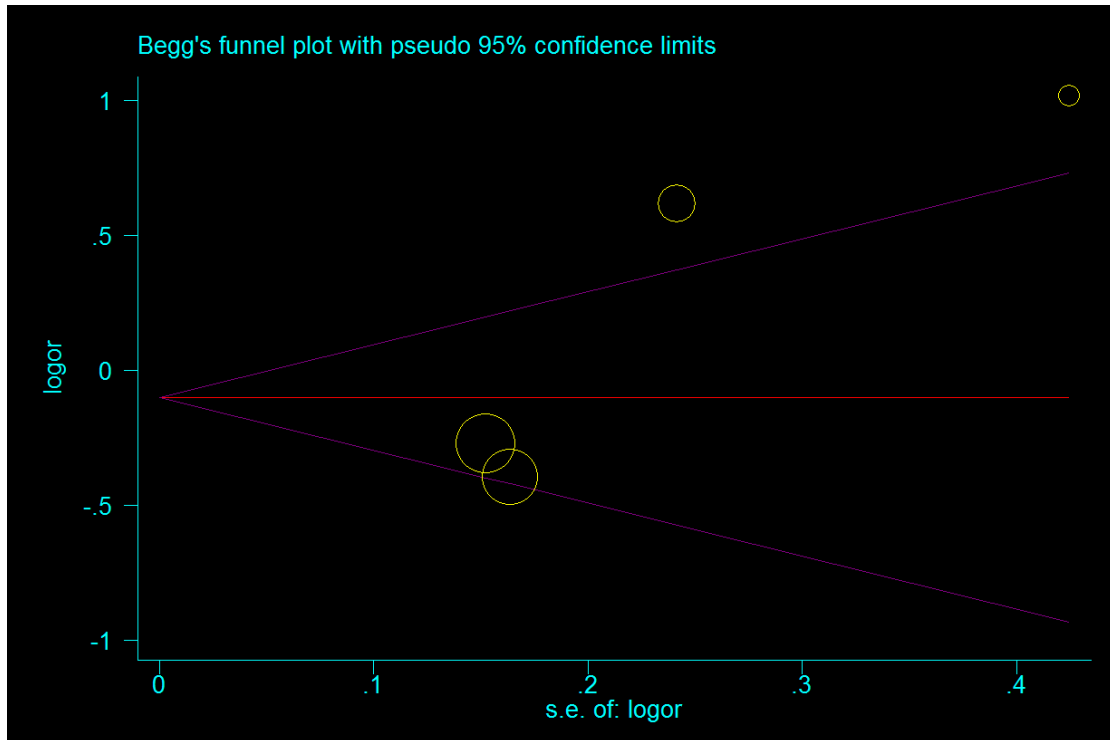
**Supplementary figure 25. Begg's funnel plot for publication bias under XRCC3-rs1799796 polymorphism (allelic comparison B vs. A).** The x-axis log (OR) and the y-axis is natural logarithm of OR. The horizontal line in the figure represents the overall estimated log (OR). The two diagonal lines indicate the pseudo 95% confidence limits of the effect estimate. Log (OR) = log-transformed OR, OR = odds ratio.



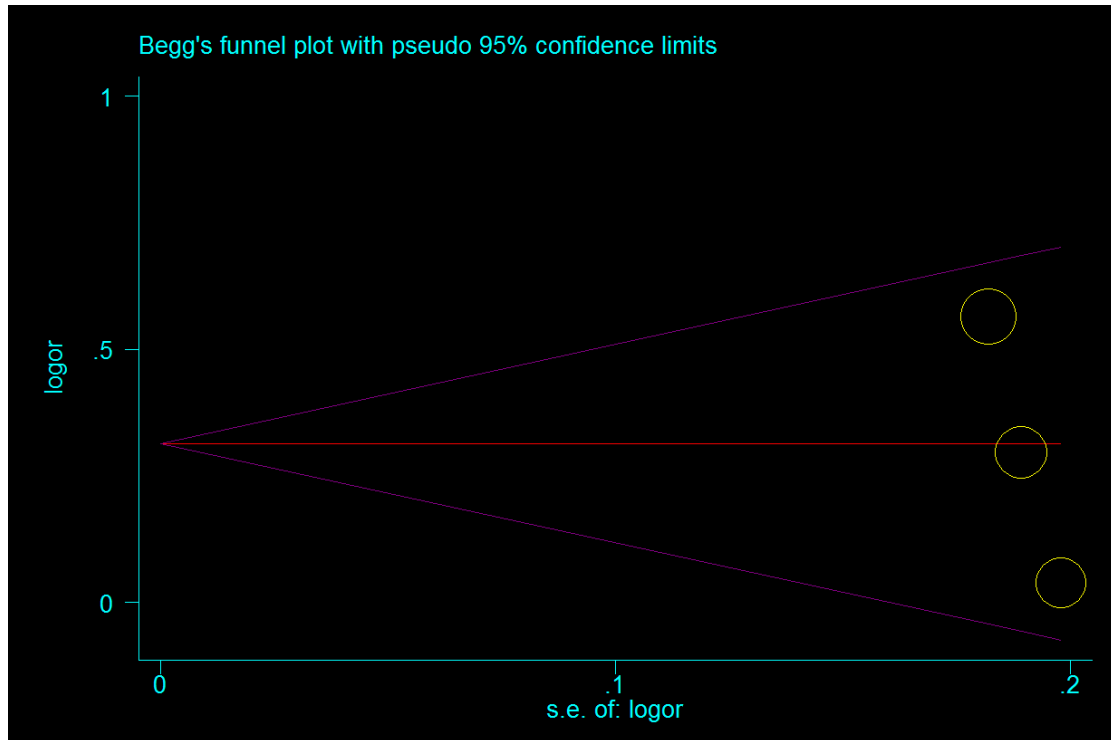
**Supplementary figure 26. Begg's funnel plot for publication bias under *XRCC4*-rs1805377 polymorphism (allelic comparison B vs. A).** The x-axis is  $\log(OR)$  and the y-axis is natural logarithm of OR. The horizontal line in the figure represents the overall estimated  $\log(OR)$ . The two diagonal lines indicate the pseudo 95% confidence limits of the effect estimate.  $\log(OR) = \ln(OR)$ , OR = odds ratio.



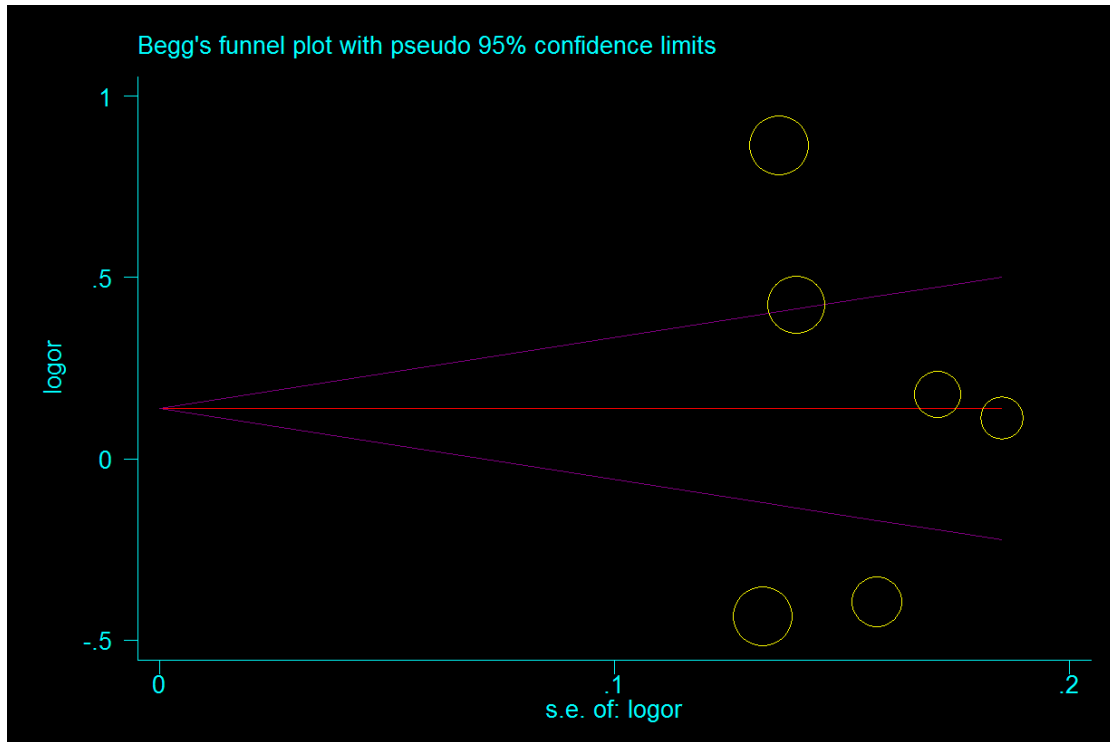
**Supplementary figure 27. Begg's funnel plot for publication bias under *XRCC4*-rs6869366 polymorphism (allelic comparison B vs. A).** The x-axis is  $\log(OR)$  and the y-axis is natural logarithm of OR. The horizontal line in the figure represents the overall estimated  $\log(OR)$ . The two diagonal lines indicate the pseudo 95% confidence limits of the effect estimate.  $\log(OR) = \log$ -transformed OR, OR = odds ratio.



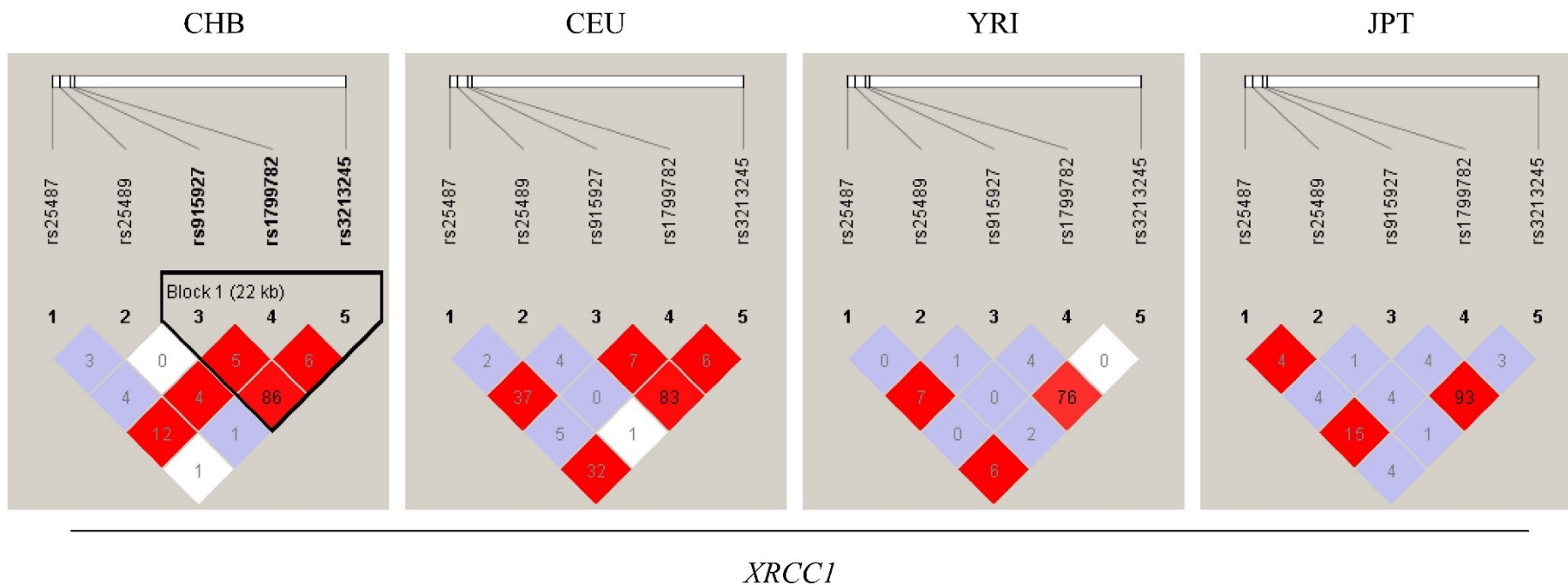
**Supplementary figure 28. Begg's funnel plot for publication bias under *XRCC4*-rs28360071 polymorphism (allelic comparison B vs. A).** The x-axis is  $\log(OR)$  and the y-axis is natural logarithm of  $OR$ . The horizontal line in the figure represents the overall estimated  $\log(OR)$ . The two diagonal lines indicate the pseudo 95% confidence limits of the effect estimate.  $\log(OR) = \log$ -transformed  $OR$ ,  $OR =$  odds ratio.



**Supplementary figure 29. Begg's funnel plot for publication bias under XRCC7-rs7003908 polymorphism (allelic comparison B vs. A).** The x-axis log (OR) and the y-axis is natural logarithm of OR. The horizontal line in the figure represents the overall estimated log (OR). The two diagonal lines indicate the pseudo 95% confidence limits of the effect estimate. Log (OR) = log-transformed OR, OR = odds ratio.

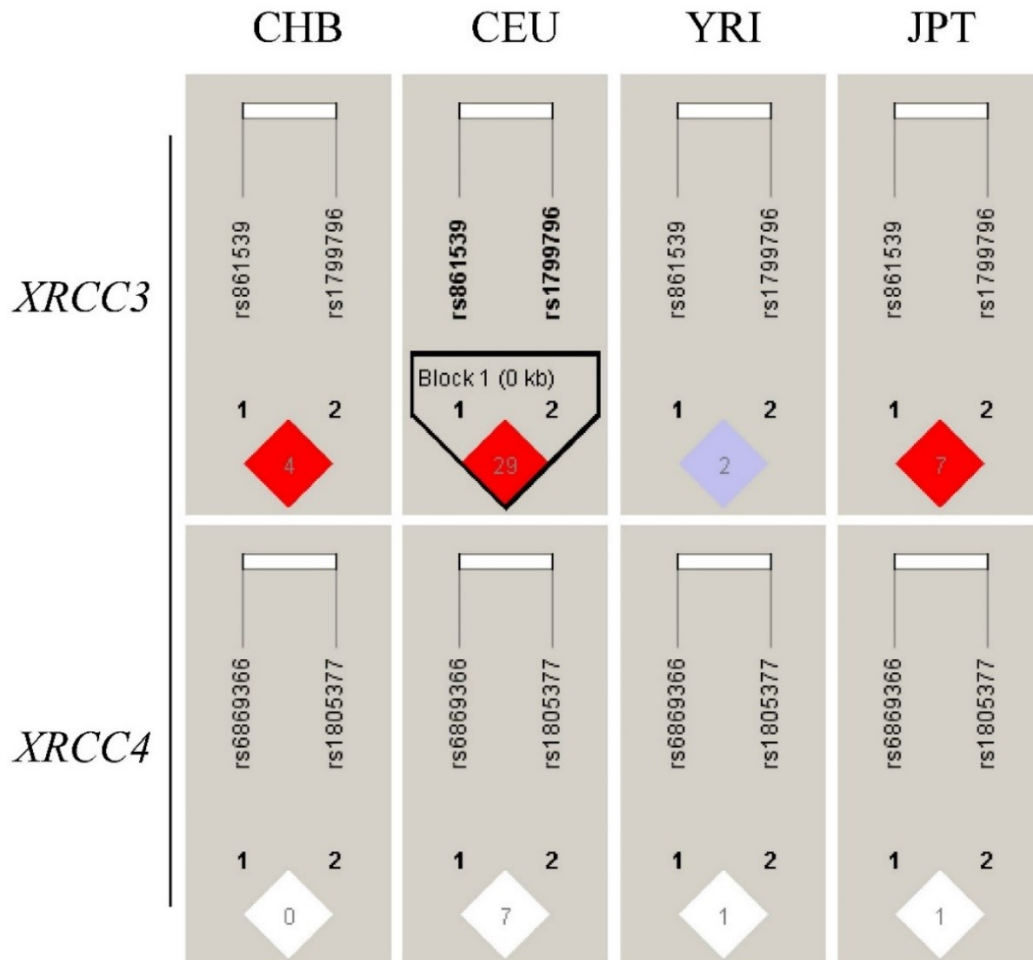


**Supplementary figure 30. Linkage disequilibrium analyses for *XRCC1* polymorphisms in populations from 1000 genomes.** The number of each cell represents  $r^2$  and white color cells shows no LD between polymorphisms. Population descriptors: CEU: Utah residents with Northern and Western European ancestry from the CEPH collection; CHB: Han Chinese in Beijing, China; JPT: Japanese in Tokyo, Japan; YRI: Yoruba in Ibadan, Nigeria. The rs numbers are SNP IDs taken from National Center for Biotechnology Information (NCBI).



**Supplementary figure 31. Linkage disequilibrium analyses for *XRCC3* and *XRCC4***

**polymorphisms in populations from 1000 genomes.** The number of each cell represents  $r^2$  and white color cells shows no LD between polymorphisms. Population descriptors: CEU: Utah residents with Northern and Western European ancestry from the CEPH collection; CHB: Han Chinese in Beijing, China; JPT: Japanese in Tokyo, Japan; YRI: Yoruba in Ibadan, Nigeria. The rs numbers are SNP IDs taken from National Center for Biotechnology Information (NCBI).



**Supplementary table 1.** Search strategies for each gene and the finally eligible articles included.

<b>Gene</b>	<b>Search Strategy</b>	<b>Eligible Publications</b>	<b>Eligible Studies</b>
<i>XRCC1</i>	(X-Ray Repair Cross Complementing 1 OR <i>XRCC1</i> ) AND (polymorphism OR variation) AND (carcinoma OR cancer OR neoplasm OR adenocarcinoma OR tumor OR tumour)	35	80
<i>XRCC2</i>	(X-Ray Repair Cross Complementing 2 OR <i>XRCC2</i> ) AND (polymorphism OR variation) AND (carcinoma OR cancer OR neoplasm OR adenocarcinoma OR tumor OR tumour)	3	3
<i>XRCC3</i>	(X-Ray Repair Cross Complementing 3 OR <i>XRCC3</i> ) AND (polymorphism OR variation) AND (carcinoma OR cancer OR neoplasm OR adenocarcinoma OR tumor OR tumour)	22	29
<i>XRCC4</i>	(X-Ray Repair Cross Complementing 4 OR <i>XRCC4</i> ) AND (polymorphism OR variation) AND (carcinoma OR cancer OR neoplasm OR adenocarcinoma OR tumor OR tumour)	6	12
<i>XRCC7</i>	(X-Ray Repair Cross Complementing 7 OR <i>XRCC7</i> ) AND (polymorphism OR variation) AND (carcinoma OR cancer OR neoplasm OR adenocarcinoma OR tumor OR tumour)	5	6



**Supplementary table 2.** Details of the sensitivity analyses for the polymorphisms in *XRCC* genes and the risk of urological neoplasms.

<b>Polymorphism</b>	<b>Comparison</b>	<b>Study Omitted</b>	<b>Estimate</b>	<b>[95% Confident Interval]</b>	<b>Effect Model</b>	
<i>XRCC1</i> -rs915927	B vs. A	<i>Sak et al.</i>	1.015	0.926-1.113	Fixed	
		<i>Matullo et al.</i>	1.001	0.919-1.090		
		<i>Matullo et al.</i>	0.968	0.888-1.055		
		<i>Agalliu et al.</i>	1.064	0.947-1.197		
	BA vs. AA	<i>Agalliu et al.</i>	1.006	0.927-1.093	Fixed	
		<i>Sak et al.</i>	1.009	0.852-1.194		
		<i>Matullo et al.</i>	1.011	0.870-1.175		
		<i>Matullo et al.</i>	0.941	0.805-1.100		
		<i>Agalliu et al.</i>	1.078	0.888-1.309		
		<i>Agalliu et al.</i>	1.031	0.891-1.194		
	BA+BB vs. AA	<i>Sak et al.</i>	1.022	0.872-1.197	Fixed	
		<i>Matullo et al.</i>	1.011	0.877-1.165		
		<i>Matullo et al.</i>	0.939	0.810-1.088		
		<i>Agalliu et al.</i>	1.094	0.912-1.312		
		<i>Agalliu et al.</i>	1.028	0.896-1.180		
	BB vs. AA	<i>Sak et al.</i>	1.008	0.837-1.214	Fixed	
		<i>Matullo et al.</i>	0.981	0.825-1.166		
		<i>Matullo et al.</i>	0.923	0.774-1.100		
		<i>Agalliu et al.</i>	1.091	0.862-1.380		
		<i>Agalliu et al.</i>	1.000	0.846-1.183		
<i>Sak et al.</i>		1.019	0.885-1.172			
BB vs. AA+AB	<i>Matullo et al.</i>	0.993	0.867-1.136	Fixed		
	<i>Matullo et al.</i>	0.975	0.852-1.115			
	<i>Agalliu et al.</i>	1.074	0.882-1.308			
	<i>Agalliu et al.</i>	0.991	0.869-1.130			
	B vs. A	<i>Sak et al.</i>	1.152		0.992-1.337	Random
		<i>Stern et al.</i>	1.173		1.012-1.360	
<i>Stern et al.</i>		1.168	1.012-1.347			
<i>Figueroa et al.</i>		1.178	1.004-1.383			

	Mittal <i>et al.</i>	1.194	1.023-1.394	
	Mittal <i>et al.</i>	1.204	1.041-1.393	
	Wang <i>et al.</i>	1.095	0.995-1.206	
	Xu <i>et al.</i>	1.175	1.009-1.368	
	vanGils <i>et al.</i>	1.166	1.007-1.350	
	Agalliu <i>et al.</i>	1.172	0.999-1.376	
	Agalliu <i>et al.</i>	1.181	1.023-1.363	
	Mittal <i>et al.</i>	1.193	1.022-1.394	
	Zhu <i>et al.</i>	1.178	0.998-1.392	
BA vs. AA	Sak <i>et al.</i>	1.459	1.176-1.812	Random
	Stern <i>et al.</i>	1.481	1.205-1.821	
	Stern <i>et al.</i>	1.455	1.192-1.776	
	Figueroa <i>et al.</i>	1.510	1.214-1.879	
	Mittal <i>et al.</i>	1.430	1.161-1.761	
	Mittal <i>et al.</i>	1.425	1.162-1.747	
	Wang <i>et al.</i>	1.372	1.146-1.641	
	Xu <i>et al.</i>	1.488	1.203-1.840	
	vanGils <i>et al.</i>	1.465	1.192-1.802	
	Agalliu <i>et al.</i>	1.508	1.211-1.879	
	Agalliu <i>et al.</i>	1.492	1.224-1.819	
	Mittal <i>et al.</i>	1.375	1.149-1.645	
	Zhu <i>et al.</i>	1.523	1.234-1.879	
BA+BB vs. AA	Sak <i>et al.</i>	1.269	1.134-1.421	Fixed
	Stern <i>et al.</i>	1.286	1.152-1.436	
	Stern <i>et al.</i>	1.280	1.147-1.427	
	Figueroa <i>et al.</i>	1.310	1.163-1.475	
	Mittal <i>et al.</i>	1.285	1.146-1.440	
	Mittal <i>et al.</i>	1.290	1.153-1.444	

		Wang <i>et al.</i>	1.210	1.080-1.355	
		Xu <i>et al.</i>	1.289	1.152-1.442	
		vanGils <i>et al.</i>	1.281	1.147-1.429	
		Agalliu <i>et al.</i>	1.304	1.158-1.469	
		Agalliu <i>et al.</i>	1.291	1.157-1.440	
		Mittal <i>et al.</i>	1.263	1.127-1.415	
		Zhu <i>et al.</i>	1.323	1.172-1.494	
BB vs. AA		Sak <i>et al.</i>	0.994	0.802-1.232	Fixed
		Stern <i>et al.</i>	0.996	0.806-1.232	
		Stern <i>et al.</i>	0.996	0.806-1.232	
		Figuroa <i>et al.</i>	0.997	0.804-1.237	
		Mittal <i>et al.</i>	1.034	0.814-1.314	
		Mittal <i>et al.</i>	1.053	0.836-1.328	
		Wang <i>et al.</i>	0.955	0.770-1.184	
		Xu <i>et al.</i>	1.000	0.807-1.239	
		vanGils <i>et al.</i>	0.996	0.806-1.232	
		Agalliu <i>et al.</i>	0.990	0.799-1.226	
		Agalliu <i>et al.</i>	0.996	0.806-1.232	
		Mittal <i>et al.</i>	1.045	0.824-1.324	
		Zhu <i>et al.</i>	0.899	0.692-1.168	
BB vs. AA+AB		Sak <i>et al.</i>	0.841	0.685-1.033	Fixed
		Stern <i>et al.</i>	0.844	0.689-1.035	
		Stern <i>et al.</i>	0.844	0.689-1.035	
		Figuroa <i>et al.</i>	0.842	0.686-1.035	
		Mittal <i>et al.</i>	0.878	0.697-1.104	
		Mittal <i>et al.</i>	0.899	0.720-1.124	
		Wang <i>et al.</i>	0.813	0.662-0.999	

XRCC1-rs3213245	B vs. A	Xu <i>et al.</i>	0.846	0.689-1.038	Fixed
		vanGils <i>et al.</i>	0.844	0.689-1.035	
		Agalliu <i>et al.</i>	0.838	0.682-1.029	
		Agalliu <i>et al.</i>	0.844	0.689-1.035	
		Mittal <i>et al.</i>	0.934	0.743-1.176	
		Zhu <i>et al.</i>	0.714	0.557-0.916	
		Wang <i>et al.</i>	0.966	0.831-1.124	
		Sak <i>et al.</i>	0.899	0.706-1.144	
		Zhi <i>et al.</i>	0.962	0.825-1.123	
	BA vs. AA	Wang <i>et al.</i>	0.909	0.706-1.169	Fixed
		Sak <i>et al.</i>	0.788	0.596-1.042	
		Zhi <i>et al.</i>	0.911	0.704-1.180	
	BA+BB vs. AA	Wang <i>et al.</i>	0.926	0.728-1.177	Fixed
		Sak <i>et al.</i>	0.831	0.634-1.089	
		Zhi <i>et al.</i>	0.922	0.719-1.181	
	BB vs. AA	Wang <i>et al.</i>	1.015	0.726-1.421	Fixed
		Sak <i>et al.</i>	1.621	0.664-3.957	
		Zhi <i>et al.</i>	1.004	0.710-1.421	
BB vs. AA+AB	Wang <i>et al.</i>	0.991	0.775-1.266	Fixed	
	Sak <i>et al.</i>	1.715	0.704-4.174		
	Zhi <i>et al.</i>	0.982	0.765-1.261		
XRCC1-rs25487	B vs. A	Figuroa <i>et al.</i>	1.025	0.985-1.066	Fixed
		Matullo <i>et al.</i>	1.033	0.994-1.072	
		Stern <i>et al.</i>	1.030	0.992-1.069	
		Stern <i>et al.</i>	1.032	0.994-1.072	
		Mittal <i>et al.</i>	1.026	0.988-1.065	
		Arizono <i>et al.</i>	1.033	0.995-1.073	

Mittal <i>et al.</i>	1.027	0.989-1.067
Sak <i>et al.</i>	1.034	0.995-1.074
Sanyal <i>et al.</i>	1.027	0.989-1.067
Matullo <i>et al.</i>	1.036	0.997-1.076
Fontana <i>et al.</i>	1.032	0.994-1.071
Broberg <i>et al.</i>	1.029	0.992-1.069
Matullo <i>et al.</i>	1.030	0.992-1.069
Shen <i>et al.</i>	1.033	0.994-1.072
Ramaniuk <i>et al.</i>	1.033	0.995-1.073
Zhi <i>et al.</i>	1.025	0.987-1.064
Wang <i>et al.</i>	1.034	0.996-1.074
Andrew <i>et al.</i>	1.037	0.997-1.078
Kelsey <i>et al.</i>	1.032	0.994-1.072
Huang <i>et al.</i>	1.030	0.991-1.070
Gao <i>et al.</i>	1.027	0.989-1.067
Hamano <i>et al.</i>	1.031	0.993-1.070
Berhane <i>et al.</i>	1.026	0.988-1.065
Mittal <i>et al.</i>	1.028	0.990-1.068
Abe <i>et al.</i>	1.031	0.993-1.072
vanGils <i>et al.</i>	1.033	0.995-1.072
Xu <i>et al.</i>	1.024	0.987-1.064
Ritchey <i>et al.</i>	1.029	0.991- 1.068
Hirata <i>et al.</i> .	1.030	0.992-1.070
Dhillon <i>et al.</i>	1.032	0.994-1.072
Kuasne <i>et al.</i>	1.030	0.992-1.070
Zhu <i>et al.</i>	1.022	0.983-1.062
Chen <i>et al.</i>	1.031	0.993-1.070

	Chen <i>et al.</i>	1.026	0.988-1.066	
	Rybicki <i>et al.</i>	1.034	0.995-1.074	
	Rybicki <i>et al.</i>	1.033	0.994-1.073	
	Agalliu <i>et al.</i>	1.044	1.003-1.086	
	Agalliu <i>et al.</i>	1.032	0.994-1.071	
	Hirata <i>et al.</i>	1.029	0.991-1.068	
BA vs. AA	Figuroa <i>et al.</i>	1.027	0.971-1.086	Fixed
	Matullo <i>et al.</i>	1.034	0.980-1.091	
	Stern <i>et al.</i>	1.031	0.977-1.088	
	Stern <i>et al.</i>	1.032	0.977-1.089	
	Mittal <i>et al.</i>	1.025	0.971-1.083	
	Arizono <i>et al.</i>	1.030	0.975-1.087	
	Mittal <i>et al.</i>	1.025	0.971-1.082	
	Sak <i>et al.</i>	1.034	0.979-1.092	
	Sanyal <i>et al.</i>	1.027	0.972-1.084	
	Matullo <i>et al.</i>	1.038	0.983-1.096	
	Fontana <i>et al.</i>	1.032	0.977-1.089	
	Broberg <i>et al.</i>	1.029	0.975-1.086	
	Matullo <i>et al.</i>	1.033	0.978-1.091	
	Shen <i>et al.</i>	1.035	0.980-1.093	
	Ramaniuk <i>et al.</i>	1.033	0.978-1.091	
	Zhi <i>et al.</i>	1.026	0.971-1.083	
	Wang <i>et al.</i>	1.039	0.984-1.097	
	Andrew <i>et al.</i>	1.026	0.969-1.085	
	Kelsey <i>et al.</i>	1.021	0.966-1.078	
	Huang <i>et al.</i>	1.031	0.976-1.090	
	Gao <i>et al.</i>	1.031	0.977-1.089	

	Hamano <i>et al.</i>	1.033	0.979-1.091	
	Berhane <i>et al.</i>	1.031	0.976-1.088	
	Mittal <i>et al.</i>	1.037	0.982-1.095	
	Abe <i>et al.</i>	1.035	0.980-1.093	
	vanGils <i>et al.</i>	1.034	0.980-1.092	
	Xu <i>et al.</i>	1.023	0.969-1.080	
	Ritchey <i>et al.</i>	1.036	0.981-1.093	
	Hirata <i>et al.</i> .	1.034	0.979-1.092	
	Dhillon <i>et al.</i>	1.034	0.980-1.092	
	Kuasne <i>et al.</i>	1.038	0.984-1.096	
	Zhu <i>et al.</i>	1.028	0.973-1.086	
	Chen <i>et al.</i>	1.032	0.978-1.090	
	Chen <i>et al.</i>	1.027	0.972-1.084	
	Rybicki <i>et al.</i>	1.037	0.981-1.095	
	Rybicki <i>et al.</i>	1.035	0.979-1.093	
	Agalliu <i>et al.</i>	1.048	0.990-1.110	
	Agalliu <i>et al.</i>	1.035	0.981-1.093	
	Hirata <i>et al.</i> .	1.036	0.981-1.093	
BA+BB vs. AA	Figuroa <i>et al.</i>	1.033	0.979-1.089	Fixed
	Matullo <i>et al.</i>	1.042	0.990-1.096	
	Stern <i>et al.</i>	1.038	0.986-1.092	
	Stern <i>et al.</i>	1.040	0.988-1.095	
	Mittal <i>et al.</i>	1.032	0.981-1.087	
	Arizono <i>et al.</i>	1.040	0.988-1.095	
	Mittal <i>et al.</i>	1.033	0.981-1.087	
	Sak <i>et al.</i>	1.042	0.989-1.098	
	Sanyal <i>et al.</i>	1.034	0.982-1.089	
	Matullo <i>et al.</i>	1.046	0.994-1.102	

Fontana <i>et al.</i>	1.040	0.988-1.094
Broberg <i>et al.</i>	1.037	0.985-1.091
Matullo <i>et al.</i>	1.039	0.987-1.094
Shen <i>et al.</i>	1.042	0.990-1.097
Ramaniuk <i>et al.</i>	1.042	0.989-1.097
Zhi <i>et al.</i>	1.032	0.980-1.087
Wang <i>et al.</i>	1.046	0.994-1.101
Andrew <i>et al.</i>	1.039	0.985-1.096
Kelsey <i>et al.</i>	1.033	0.981-1.088
Huang <i>et al.</i>	1.038	0.985-1.094
Gao <i>et al.</i>	1.037	0.985-1.091
Hamano <i>et al.</i>	1.040	0.989-1.095
Berhane <i>et al.</i>	1.035	0.984-1.090
Mittal. <i>et al.</i>	1.041	0.989-1.096
Abe <i>et al.</i>	1.042	0.989-1.097
vanGils <i>et al.</i>	1.042	0.990-1.097
Xu <i>et al.</i>	1.030	0.978-1.084
Ritchey <i>et al.</i>	1.040	0.988-1.095
Hirata <i>et al.</i> .	1.040	0.988-1.095
Dhillon <i>et al.</i>	1.042	0.990-1.096
Kuasne <i>et al.</i>	1.043	0.990-1.097
Zhu <i>et al.</i>	1.031	0.979-1.087
Chen <i>et al.</i>	1.040	0.988-1.094
Chen <i>et al.</i>	1.033	0.981-1.088
Rybicki <i>et al.</i>	1.044	0.991-1.100
Rybicki <i>et al.</i>	1.042	0.990-1.098
Agalliu <i>et al.</i>	1.057	1.002-1.116



	Agalliu <i>et al.</i>	1.042	0.990-1.097	
	Hirata <i>et al.</i>	1.040	0.988-1.095	
BB vs. AA	Figuroa <i>et al.</i>	1.040	0.954-1.132	Fixed
	Matullo <i>et al.</i>	1.057	0.973-1.147	
	Stern <i>et al.</i>	1.052	0.970-1.142	
	Stern <i>et al.</i>	1.059	0.975-1.150	
	Mittal <i>et al.</i>	1.043	0.960-1.133	
	Arizono <i>et al.</i>	1.062	0.978-1.153	
	Mittal <i>et al.</i>	1.046	0.963-1.136	
	Sak <i>et al.</i>	1.060	0.974-1.152	
	Sanyal <i>et al.</i>	1.048	0.965-1.139	
	Matullo <i>et al.</i>	1.063	0.978-1.155	
	Fontana <i>et al.</i>	1.056	0.973-1.146	
	Broberg <i>et al.</i>	1.053	0.970-1.143	
	Matullo <i>et al.</i>	1.050	0.966-1.140	
	Shen <i>et al.</i>	1.056	0.972-1.146	
	Ramaniuk <i>et al.</i>	1.060	0.975-1.152	
	Zhi <i>et al.</i>	1.042	0.959-1.131	
	Wang <i>et al.</i>	1.057	0.973-1.148	
	Andrew <i>et al.</i>	1.076	0.987-1.173	
	Kelsey <i>et al.</i>	1.067	0.981-1.160	
	Huang <i>et al.</i>	1.050	0.966-1.142	
	Gao <i>et al.</i>	1.044	0.961-1.134	
	Hamano <i>et al.</i>	1.054	0.971-1.145	
	Berhane <i>et al.</i>	1.040	0.957-1.129	
	Mittal <i>et al.</i>	1.044	0.960-1.134	
	Abe <i>et al.</i>	1.052	0.968-1.144	

	vanGils <i>et al.</i>	1.057	0.973-1.147	
	Xu <i>et al.</i>	1.046	0.963-1.136	
	Ritchey <i>et al.</i>	1.044	0.961-1.133	
	Hirata <i>et al.</i> .	1.049	0.966-1.139	
	Dhillon <i>et al.</i>	1.056	0.973-1.147	
	Kuasne <i>et al.</i>	1.049	0.965-1.139	
	Zhu <i>et al.</i>	1.031	0.948-1.121	
	Chen <i>et al.</i>	1.053	0.970-1.143	
	Chen <i>et al.</i>	1.045	0.962-1.135	
	Rybicki <i>et al.</i>	1.058	0.973-1.150	
	Rybicki <i>et al.</i>	1.057	0.972-1.149	
	Agalliu <i>et al.</i>	1.077	0.988-1.175	
	Agalliu <i>et al.</i>	1.052	0.970-1.142	
	Hirata <i>et al.</i> .	1.043	0.961-1.133	
BB vs. AA+AB	Figuroa <i>et al.</i>	1.030	0.951-1.115	Fixed
	Matullo <i>et al.</i>	1.043	0.966-1.125	
	Stern <i>et al.</i>	1.039	0.963-1.121	
	Stern <i>et al.</i>	1.045	0.968-1.129	
	Mittal <i>et al.</i>	1.035	0.958-1.118	
	Arizono <i>et al.</i>	1.048	0.971-1.132	
	Mittal <i>et al.</i>	1.040	0.963-1.123	
	Sak <i>et al.</i>	1.046	0.967-1.130	
	Sanyal <i>et al.</i>	1.038	0.961-1.121	
	Matullo <i>et al.</i>	1.046	0.968-1.130	
	Fontana <i>et al.</i>	1.043	0.967-1.126	
	Broberg <i>et al.</i>	1.041	0.964-1.123	
	Matullo <i>et al.</i>	1.036	0.960-1.119	

		Shen <i>et al.</i>	1.041	0.964-1.124	
		Ramaniuk <i>et al.</i>	1.046	0.968-1.130	
		Zhi <i>et al.</i>	1.031	0.955-1.114	
		Wang <i>et al.</i>	1.041	0.964-1.124	
		Andrew <i>et al.</i>	1.067	0.984-1.156	
		Kelsey <i>et al.</i>	1.061	0.982-1.146	
		Huang <i>et al.</i>	1.038	0.960-1.122	
		Gao <i>et al.</i>	1.031	0.955-1.114	
		Hamano <i>et al.</i>	1.038	0.961-1.121	
		Berhane <i>et al.</i>	1.027	0.951-1.109	
		Mittal. <i>et al.</i>	1.026	0.950-1.109	
		Abe <i>et al.</i>	1.038	0.960-1.122	
		vanGils <i>et al.</i>	1.042	0.965-1.125	
		Xu <i>et al.</i>	1.035	0.959-1.117	
		Ritchey <i>et al.</i>	1.031	0.955-1.113	
		Hirata <i>et al.</i> .	1.036	0.959-1.118	
		Dhillon <i>et al.</i>	1.041	0.964-1.124	
		Kuasne <i>et al.</i>	1.030	0.954-1.112	
		Zhu <i>et al.</i>	1.021	0.944-1.103	
		Chen <i>et al.</i>	1.039	0.963-1.122	
		Chen <i>et al.</i>	1.035	0.958-1.117	
		Rybicki <i>et al.</i>	1.042	0.964-1.126	
		Rybicki <i>et al.</i>	1.043	0.965-1.127	
		Agalliu <i>et al.</i>	1.055	0.973-1.143	
		Agalliu <i>et al.</i>	1.039	0.963-1.121	
		Hirata <i>et al.</i> .	1.030	0.954-1.112	
XRCC1-rs1799782	B vs. A	Huang <i>et al.</i>	1.048	0.927-1.185	Random

	Andrew <i>et al.</i>	1.056	0.935-1.194	
	Figuroa <i>et al.</i>	1.040	0.917-1.178	
	Matullo <i>et al.</i>	1.045	0.927-1.178	
	Stern <i>et al.</i>	1.047	0.935-1.174	
	Stern <i>et al.</i>	1.062	0.948- 1.189	
	Mittal <i>et al.</i>	1.033	0.917-1.163	
	Mittal <i>et al.</i>	1.038	0.920-1.172	
	Fontana <i>et al.</i>	1.040	0.925-1.170	
	Wang <i>et al.</i>	1.016	0.908-1.136	
	Sak <i>et al.</i>	1.047	0.927-1.183	
	Matullo <i>et al.</i>	1.059	0.943-1.191	
	Agalliu <i>et al.</i>	1.045	0.928-1.176	
	Hamano <i>et al.</i>	1.022	0.912-1.144	
	Hirata <i>et al.</i>	1.029	0.912-1.160	
	Zhu <i>et al.</i>	1.020	0.907-1.148	
	vanGils <i>et al.</i>	1.050	0.934-1.180	
	Xu <i>et al.</i>	1.071	0.956-1.199	
	Agalliu <i>et al.</i>	1.059	0.938-1.196	
	Mittal <i>et al.</i>	1.035	0.918-1.168	
BA vs. AA	Huang <i>et al.</i>	0.989	0.869-1.126	Random
	Andrew <i>et al.</i>	0.994	0.872-1.134	
	Figuroa <i>et al.</i>	0.985	0.863-1.124	
	Matullo <i>et al.</i>	0.987	0.870-1.119	
	Stern <i>et al.</i>	0.984	0.880-1.116	
	Stern <i>et al.</i>	1.004	0.892-1.131	
	Mittal <i>et al.</i>	0.978	0.864-1.107	
	Mittal <i>et al.</i>	0.983	0.866-1.115	

	Fontana <i>et al.</i>	0.987	0.875-1.114	
	Wang <i>et al.</i>	0.969	0.857-1.095	
	Sak <i>et al.</i>	0.989	0.870-1.125	
	Matullo <i>et al.</i>	1.002	0.886-1.134	
	Agalliu <i>et al.</i>	0.989	0.873-1.119	
	Hamano <i>et al.</i>	0.961	0.869-1.062	
	Hirata <i>et al.</i>	0.969	0.859-1.092	
	Zhu <i>et al.</i>	0.974	0.855-1.109	
	vanGils <i>et al.</i>	0.993	0.878-1.124	
	Xu <i>et al.</i>	1.013	0.903-1.137	
	Agalliu <i>et al.</i>	0.999	0.876-1.139	
	Mittal <i>et al.</i>	0.993	0.875-1.126	
BA+BB vs. AA	Huang <i>et al.</i>	1.021	0.890-1.171	Random
	Andrew <i>et al.</i>	1.027	0.894-1.180	
	Figueroa <i>et al.</i>	1.014	0.882-1.167	
	Matullo <i>et al.</i>	1.018	0.891-1.164	
	Stern <i>et al.</i>	1.022	0.900-1.160	
	Stern <i>et al.</i>	1.037	0.914-1.177	
	Mittal <i>et al.</i>	1.006	0.882-1.148	
	Mittal <i>et al.</i>	1.012	0.885-1.158	
	Fontana <i>et al.</i>	1.017	0.895-1.156	
	Wang <i>et al.</i>	0.992	0.873-1.127	
	Sak <i>et al.</i>	1.020	0.890-1.169	
	Matullo <i>et al.</i>	1.034	0.907-1.179	
	Agalliu <i>et al.</i>	1.019	0.893-1.162	
	Hamano <i>et al.</i>	0.989	0.880-1.111	
	Hirata <i>et al.</i>	0.998	0.876-1.136	

		Zhu <i>et al.</i>	0.997	0.872-1.141	
		vanGils <i>et al.</i>	1.024	0.899-1.167	
		Xu <i>et al.</i>	1.047	0.926-1.185	
		Agalliu <i>et al.</i>	1.031	0.898-1.183	
		Mittal <i>et al.</i>	1.015	0.887-1.162	
BB vs. AA		Huang <i>et al.</i>	1.537	1.195-1.976	Fixed
		Andrew <i>et al.</i>	1.603	1.237-2.076	
		Figueroa <i>et al.</i>	1.493	1.160-1.920	
		Matullo <i>et al.</i>	1.524	1.187-1.958	
		Stern <i>et al.</i>	1.525	1.188-1.958	
		Stern <i>et al.</i>	1.525	1.188-1.958	
		Mittal <i>et al.</i>	1.514	1.178-1.946	
		Mittal <i>et al.</i>	1.520	1.182-1.956	
		Fontana <i>et al.</i>	1.525	1.188-1.958	
		Wang <i>et al.</i>	1.392	1.069-1.813	
		Sak <i>et al.</i>	1.540	1.196-1.982	
		Matullo <i>et al.</i>	1.525	1.188-1.958	
		Agalliu <i>et al.</i>	1.525	1.188-1.958	
		Hamano <i>et al.</i>	1.533	1.185-1.985	
		Hirata <i>et al.</i>	1.541	1.180-2.013	
		Zhu <i>et al.</i>	1.359	1.180-2.013	
		vanGils <i>et al.</i>	1.525	1.188-1.958	
		Xu <i>et al.</i>	1.762	1.341-2.316	
		Agalliu <i>et al.</i>	1.571	1.216-2.028	
		Mittal <i>et al.</i>	1.477	1.144--1.908	
BB vs. AA+AB		Huang <i>et al.</i>	1.483	1.164-1.890	Fixed
		Andrew <i>et al.</i>	1.539	1.200-1.973	

		Figuroa <i>et al.</i>	1.444	1.133-1.842	
		Matullo <i>et al.</i>	1.473	1.157-1.875	
		Stern <i>et al.</i>	1.474	1.159-1.875	
		Stern <i>et al.</i>	1.474	1.159-1.875	
		Mittal <i>et al.</i>	1.465	1.150-1.865	
		Mittal <i>et al.</i>	1.469	1.153-1.873	
		Fontana <i>et al.</i>	1.474	1.155-1.882	
		Wang <i>et al.</i>	1.362	1.057-1.755	
		Sak <i>et al.</i>	1.486	1.165-1.895	
		Matullo <i>et al.</i>	1.474	1.159-1.875	
		Agalliu <i>et al.</i>	1.474	1.159-1.875	
		Hamano <i>et al.</i>	1.508	1.176-1.933	
		Hirata <i>et al.</i>	1.521	1.176-1.968	
		Zhu <i>et al.</i>	1.326	1.000-1.757	
		vanGils <i>et al.</i>	1.474	1.159-1.875	
		Xu <i>et al.</i>	1.627	1.251-2.117	
		Agalliu <i>et al.</i>	1.512	1.182-1.933	
		Mittal <i>et al.</i>	1.427	1.116-1.825	
XRCC2-rs3218536	B vs. A	Nowacka-Zawisza <i>et al.</i>	0.930	0.772-1.120	Fixed
		Matullo <i>et al.</i>	0.939	0.778-1.133	
		Figuroa <i>et al.</i>	1.064	0.649-1.744	
	BA vs. AA	Nowacka-Zawisza <i>et al.</i>	0.997	0.813-1.224	Fixed
		Matullo <i>et al.</i>	0.996	0.811-1.223	
		Figuroa <i>et al.</i>	1.196	0.701-2.041	
	BA+BB vs. AA	Nowacka-Zawisza <i>et al.</i>	0.961	0.787-1.175	Fixed
		Matullo <i>et al.</i>	0.966	0.789-1.182	
		Figuroa <i>et al.</i>	1.132	0.672-10.909	

XRCC3-rs861539	BB vs. AA	Nowacka-Zawisza <i>et al.</i>	0.438	0.177-1.080	Fixed
		Matullo <i>et al.</i>	0.453	0.171-1.198	
		Figueroa <i>et al.</i>	0.353	0.031-3.954	
	BB vs. AA+AB	Nowacka-Zawisza <i>et al.</i>	0.438	0.177-1.079	Fixed
		Matullo <i>et al.</i>	0.455	0.172-1.201	
		Figueroa <i>et al.</i>	0.345	0.030-3.854	
	B vs. A	Narter <i>et al.</i>	1.043	0.945-1.151	Random
		Fontana <i>et al.</i>	1.018	0.910-1.140	
		Matullo <i>et al.</i>	0.990	0.885-1.106	
		Zhu <i>et al.</i>	0.997	0.889-1.118	
		Andrew <i>et al.</i>	1.000	0.882-1.133	
		Gangwar <i>et al.</i>	1.008	0.897-1.133	
		Figueroa <i>et al.</i>	0.998	0.881-1.130	
		Mittle <i>et al.</i>	1.009	0.898-1.133	
		Matullo <i>et al.</i>	0.996	0.886-1.120	
		Sanyal. <i>et al.</i>	1.000	0.889-1.125	
		Shen <i>et al.</i>	1.023	0.913-1.146	
		Narter <i>et al.</i>	1.043	0.945-1.151	
		Wu <i>et al.</i>	0.999	0.885-1.127	
		Broberg <i>et al.</i>	1.011	0.902-1.134	
		Stern <i>et al.</i>	0.997	0.888-1.120	
Matullo <i>et al.</i>	1.012	0.901-1.137			
Hao <i>et al.</i>	0.993	0.888-1.111			
Nowacka-Zawisza <i>et al.</i>	1.023	0.914-1.146			
Ritchey <i>et al.</i>	1.007	0.898-1.130			
Dhillon <i>et al.</i>	1.013	0.903-1.137			
Mandal. <i>et al.</i>	0.995	0.887-1.117			



	Hamano <i>et al.</i>	1.013	0.904-1.135	
	Dhillon <i>et al.</i>	1.013	0.903-1.137	
BA vs. AA	Narter <i>et al.</i>	1.034	0.909-1.176	Random
	Fontana <i>et al.</i>	1.036	0.911-1.178	
	Matullo <i>et al.</i>	1.005	0.897-1.126	
	Zhu <i>et al.</i>	1.034	0.906-1.181	
	Andrew <i>et al.</i>	1.039	0.904-1.194	
	Gangwar <i>et al.</i>	1.032	0.903-1.180	
	Figueroa <i>et al.</i>	1.022	0.889-1.175	
	Mittle <i>et al.</i>	1.033	0.904-1.181	
	Matullo <i>et al.</i>	1.019	0.892-1.165	
	Sanyal. <i>et al.</i>	1.035	0.905-1.183	
	Shen <i>et al.</i>	1.061	0.938-1.199	
	Narter <i>et al.</i>	1.034	0.909-1.176	
	Wu <i>et al.</i>	1.018	0.889-1.166	
	Broberg <i>et al.</i>	1.026	0.900-1.170	
	Stern <i>et al.</i>	1.020	0.893-1.164	
	Matullo <i>et al.</i>	1.036	0.907-1.184	
	Hao <i>et al.</i>	1.012	0.892-1.148	
	Nowacka-Zawisza <i>et al.</i>	1.032	0.904-1.178	
	Ritchey <i>et al.</i>	1.037	0.910-1.182	
	Dhillon <i>et al.</i>	1.056	0.934-1.195	
	Mandal. <i>et al.</i>	1.018	0.892-1.161	
	Hamano <i>et al.</i>	1.041	0.914-1.185	
	Dhillon <i>et al.</i>	1.056	0.934-1.195	
BA+BB vs. AA	Narter <i>et al.</i>	1.044	0.918-1.187	Random
	Fontana <i>et al.</i>	1.026	0.894-1.177	

	Matullo <i>et al.</i>	0.993	0.873-1.129	
	Zhu <i>et al.</i>	1.012	0.878-1.166	
	Andrew <i>et al.</i>	1.016	0.873-1.182	
	Gangwar <i>et al.</i>	1.019	0.883-1.175	
	Figueroa <i>et al.</i>	1.006	0.866-1.169	
	Mittle <i>et al.</i>	1.019	0.883-1.176	
	Matullo <i>et al.</i>	1.004	0.871-1.158	
	Sanyal. <i>et al.</i>	1.015	0.879-1.172	
	Shen <i>et al.</i>	1.047	0.915-1.198	
	Narter <i>et al.</i>	1.044	0.918-1.187	
	Wu <i>et al.</i>	1.005	0.868-1.163	
	Broberg <i>et al.</i>	1.016	0.883-1.170	
	Stern <i>et al.</i>	1.005	0.872-1.158	
	Matullo <i>et al.</i>	1.023	0.888-1.180	
	Hao <i>et al.</i>	0.999	0.871-1.146	
	Nowacka-Zawisza <i>et al.</i>	1.028	0.893-1.183	
	Ritchey <i>et al.</i>	1.021	0.887-1.175	
	Dhillon <i>et al.</i>	1.039	0.905-1.191	
	Mandal. <i>et al.</i>	1.003	0.871-1.155	
	Hamano <i>et al.</i>	1.027	0.894-1.181	
	Dhillon <i>et al.</i>	1.039	0.905-1.191	
BB vs. AA	Narter <i>et al.</i>	1.141	0.954-1.365	Random
	Fontana <i>et al.</i>	1.103	0.901-1.350	
	Matullo <i>et al.</i>	1.051	0.857-1.290	
	Zhu <i>et al.</i>	1.053	0.863-1.286	
	Andrew <i>et al.</i>	1.067	0.848-1.342	
	Gangwar <i>et al.</i>	1.086	0.881-1.339	

	Figueroa <i>et al.</i>	1.068	0.850-1.342	
	Mittle <i>et al.</i>	1.087	0.882-1.340	
	Matullo <i>et al.</i>	1.058	0.853-1.311	
	Sanyal. <i>et al.</i>	1.062	0.858-1.316	
	Shen <i>et al.</i>	1.107	0.899-1.364	
	Narter <i>et al.</i>	1.141	0.954-1.365	
	Wu <i>et al.</i>	1.071	0.857-1.337	
	Broberg <i>et al.</i>	1.099	0.895-1.350	
	Stern <i>et al.</i>	1.063	0.860-1.314	
	Matullo <i>et al.</i>	1.098	0.889-1.357	
	Hao <i>et al.</i>	1.077	0.877-1.322	
	Nowacka-Zawisza <i>et al.</i>	1.124	0.920-1.375	
	Ritchey <i>et al.</i>	1.073	0.874-1.317	
	Dhillon <i>et al.</i>	1.066	0.867-1.312	
	Mandal. <i>et al.</i>	1.063	0.864-1.308	
	Hamano <i>et al.</i>	1.081	0.879-1.328	
	Dhillon <i>et al.</i>	1.066	0.867-1.312	
BB vs. AA+AB	Narter <i>et al.</i>	1.103	0.936-1.300	Random
	Fontana <i>et al.</i>	1.071	0.886-1.295	
	Matullo <i>et al.</i>	1.044	0.859-1.268	
	Zhu <i>et al.</i>	1.024	0.853-1.230	
	Andrew <i>et al.</i>	1.032	0.837-1.272	
	Gangwar <i>et al.</i>	1.053	0.868-1.278	
	Figueroa <i>et al.</i>	1.043	0.844-1.288	
	Mittle <i>et al.</i>	1.054	0.869-1.278	
	Matullo <i>et al.</i>	1.034	0.847-1.264	
	Sanyal. <i>et al.</i>	1.029	0.846-1.252	

		Shen <i>et al.</i>	1.054	0.866-1.283	
		Narter <i>et al.</i>	1.103	0.936-1.300	
		Wu <i>et al.</i>	1.047	0.853-1.286	
		Broberg <i>et al.</i>	1.069	0.885-1.291	
		Stern <i>et al.</i>	1.038	0.853-1.264	
		Matullo <i>et al.</i>	1.062	0.873-1.292	
		Hao <i>et al.</i>	1.047	0.866-1.265	
		Nowacka-Zawisza <i>et al.</i>	1.087	0.903-1.309	
		Ritchev <i>et al.</i>	1.042	0.863-1.259	
		Dhillon <i>et al.</i>	1.029	0.853-1.241	
		Mandal. <i>et al.</i>	1.036	0.855-1.255	
		Hamano <i>et al.</i>	1.049	0.867-1.268	
		Dhillon <i>et al.</i>	1.029	0.853-1.241	
XRCC3-rs1799796	B vs. A	Matullo <i>et al.</i>	0.979	0.862-1.113	Fixed
		Mittle <i>et al.</i>	0.941	0.833-1.063	
		Wu <i>et al.</i>	1.059	0.908-1.234	
		Broberg <i>et al.</i>	0.997	0.886-1.121	
		Matullo <i>et al.</i>	0.939	0.830-1.064	
	BA vs. AA	Matullo <i>et al.</i>	1.007	0.845-1.200	Fixed
		Mittle <i>et al.</i>	0.917	0.775-1.086	
		Wu <i>et al.</i>	1.039	0.849-1.272	
		Broberg <i>et al.</i>	0.986	0.841-1.157	
		Matullo <i>et al.</i>	0.985	0.832-1.165	
	BA+BB vs. AA	Matullo <i>et al.</i>	0.995	0.842-1.175	Fixed
		Mittle <i>et al.</i>	0.920	0.784-1.079	
		Wu <i>et al.</i>	1.059	0.873-1.285	
		Broberg <i>et al.</i>	0.991	0.852-1.154	

XRCC4-rs6869366	BB vs. AA	Matullo <i>et al.</i>	0.958	0.816-1.125	Random
		Matullo <i>et al.</i>	0.934	0.515-1.692	
		Mittle <i>et al.</i>	0.949	0.564-1.595	
		Wu <i>et al.</i>	1.077	0.608-1.910	
		Broberg <i>et al.</i>	1.075	0.715-1.614	
	BB vs. AA+AB	Matullo <i>et al.</i>	0.811	0.598-1.100	Random
		Matullo <i>et al.</i>	0.940	0.528-1.673	
		Mittle <i>et al.</i>	0.983	0.591-1.633	
		Wu <i>et al.</i>	1.070	0.602-1.904	
		Broberg <i>et al.</i>	1.096	0.739-1.625	
	B vs. A	Matullo <i>et al.</i>	0.836	0.625-1.120	Fixed
		Chang <i>et al.</i>	0.853	0.701-1.038	
		Mandal. <i>et al.</i>	1.085	0.857-1.374	
		Mittal. <i>et al.</i>	1.038	0.812-1.327	
		Chang <i>et al.</i>	0.794	0.645-0.979	
	BA vs. AA	Chang <i>et al.</i>	0.936	0.736-1.190	Fixed
		Mandal. <i>et al.</i>	1.260	0.951-1.670	
		Mittal. <i>et al.</i>	1.196	0.897-1.595	
		Chang <i>et al.</i>	0.856	0.661-1.109	
	BA+BB vs. AA	Chang <i>et al.</i>	0.884	0.699-1.118	Fixed
Mandal. <i>et al.</i>		1.200	0.911-1.582		
Mittal. <i>et al.</i>		1.137	0.857-1.508		
BB vs. AA	Chang <i>et al.</i>	0.806	0.626-1.037	Fixed	
	Chang <i>et al.</i>	0.413	0.210-0.809		
	Mandal. <i>et al.</i>	0.474	0.197-1.141		
	Mittal. <i>et al.</i>	0.341	0.119-0.980		
		Chang <i>et al.</i>	0.413	0.210-0.809	

XRCC4-rs28360071	BB vs. AA+AB	Chang <i>et al.</i>	0.469	0.242-0.910	Fixed
		Mandal. <i>et al.</i>	0.526	0.222-1.245	
		Mittal. <i>et al.</i>	0.401	0.141-1.134	
		Chang <i>et al.</i>	0.469	0.242-0.910	
	B vs. A	Mandal. <i>et al.</i>	1.188	0.909-1.553	Fixed
		Mittal. <i>et al.</i>	1.382	1.064-1.795	
		Chang <i>et al.</i>	1.544	1.195-1.997	
	BA vs. AA	Mandal. <i>et al.</i>	1.129	0.818-1.558	Fixed
		Mittal. <i>et al.</i>	1.234	0.892-1.708	
		Chang <i>et al.</i>	1.261	0.913-1.741	
	BA+BB vs. AA	Mandal. <i>et al.</i>	1.179	0.865-1.608	Fixed
		Mittal. <i>et al.</i>	1.353	0.994-1.841	
Chang <i>et al.</i>		1.447	1.073-1.952		
BB vs. AA	Mandal. <i>et al.</i>	1.690	0.712-4.010	Fixed	
	Mittal. <i>et al.</i>	2.417	1.141-5.116		
	Chang <i>et al.</i>	2.781	1.445-5.351		
XRCC4-rs1805377	BB vs. AA+AB	Mandal. <i>et al.</i>	1.635	0.692-3.863	Fixed
		Mittal. <i>et al.</i>	2.255	1.071-4.747	
		Chang <i>et al.</i>	2.618	1.367-5.014	
	B vs. A	Mandal. <i>et al.</i>	0.815	0.707-0.940	Random
		Luedeke <i>et al.</i>	0.808	0.695-0.939	
		Broberg <i>et al.</i>	0.820	0.717-0.938	
		Mittal. <i>et al.</i>	0.826	0.716-0.954	
		Figueroa <i>et al.</i>	0.884	0.740-1.056	
	BA vs. AA	Mandal. <i>et al.</i>	1.033	0.757-1.411	Random
		Luedeke <i>et al.</i>	0.997	0.768-1.293	
		Broberg <i>et al.</i>	1.018	0.781-1.325	

XRCC7-rs7003908	BA+BB vs. AA	Mittal. <i>et al.</i>	1.023	0.737-1.420	Random
		Figueroa <i>et al.</i>	0.983	0.754-1.282	
		Mandal. <i>et al.</i>	0.934	0.689-1.266	
		Luedeke <i>et al.</i>	0.923	0.717-1.188	
		Broberg <i>et al.</i>	0.926	0.717-1.197	
	BB vs. AA	Mittal. <i>et al.</i>	0.952	0.694-1.306	Fixed
		Figueroa <i>et al.</i>	0.926	0.716-1.198	
		Mandal. <i>et al.</i>	0.750	0.432-1.304	
		Luedeke <i>et al.</i>	0.660	0.375-1.160	
		Broberg <i>et al.</i>	0.709	0.432-1.165	
	BB vs. AA+AB	Mittal. <i>et al.</i>	0.902	0.536-1.516	Fixed
		Figueroa <i>et al.</i>	0.645	0.345-1.204	
		Mandal. <i>et al.</i>	0.755	0.635-0.898	
		Luedeke <i>et al.</i>	0.705	0.572-0.867	
		Broberg <i>et al.</i>	0.750	0.632-0.890	
	B vs. A	Mittal. <i>et al.</i>	0.770	0.648-0.915	Random
		Figueroa <i>et al.</i>	0.804	0.606-1.066	
		Hirata <i>et al.</i> .	1.122	0.670-1.876	
		Mandal. <i>et al.</i>	1.066	0.638-1.781	
		Wang <i>et al.</i>	1.257	0.791-1.997	
BA vs. AA	Gangwar <i>et al.</i>	0.973	0.682-1.388	Random	
	Zhi <i>et al.</i>	1.273	0.831-1.950		
	Hirata <i>et al.</i> .	1.136	0.683-1.887		
	Hirata <i>et al.</i> .	0.935	0.654-1.335		
	Mandal. <i>et al.</i>	0.960	0.658-1.398		
		1.074	0.735-1.569		
		0.893	0.661-1.206		

	Zhi <i>et al.</i>	1.101	0.790-1.533	
	Hirata <i>et al.</i> .	1.033	0.703-1.517	
BA+BB vs. AA	Hirata <i>et al.</i> .	1.075	0.630-1.834	Random
	Mandal. <i>et al.</i>	1.048	0.624-1.762	
	Wang <i>et al.</i>	1.241	0.742-2.078	
	Gangwar <i>et al.</i>	0.934	0.643-1.359	
	Zhi <i>et al.</i>	1.267	0.794-2.021	
	Hirata <i>et al.</i> .	1.146	0.668-1.966	
BB vs. AA	Hirata <i>et al.</i> .	1.190	0.443-3.191	Random
	Mandal. <i>et al.</i>	1.028	0.346-3.050	
	Wang <i>et al.</i>	1.546	0.680-3.517	
	Gangwar <i>et al.</i>	0.900	0.402-2.014	
	Zhi <i>et al.</i>	1.540	0.707-3.355	
	Hirata <i>et al.</i> .	1.102	0.402-3.019	
BB vs. AA+AB	Hirata <i>et al.</i> .	1.206	0.560-2.600	Random
	Mandal. <i>et al.</i>	1.021	0.413-2.526	
	Wang <i>et al.</i>	1.461	0.771-2.768	
	Gangwar <i>et al.</i>	0.939	0.466-1.892	
	Zhi <i>et al.</i>	1.473	0.794-2.729	
	Hirata <i>et al.</i> .	1.067	0.480-2.367	

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B: mutated allele; A: wild allele



**Supplementary table 3.** *P* values of the Egger's test for the polymorphisms in *XRCC* genes.

<b>Polymorphism</b>	<b>Subgroup</b>	<b>Egger'test <i>P</i> &gt;  t </b>
<i>XRCC1</i> -rs915927	Overall	0.397
	Caucasian	0.297
	H-B	0.513
	BC	0.611
	PCa	/
<i>XRCC1</i> -rs25489	Overall	0.292
	Asian	0.607
	Caucasian	0.518
	H-B	0.211
	P-B	0.647
	N	0.121
	Y	0.830
	BC	0.297
<i>XRCC1</i> -rs3213245	Overall	0.075
	Asian	/
	Y	0.069
	BC	0.069
<i>XRCC1</i> -rs25487	Overall	0.235
	Asian	0.864
	Caucasian	0.988
	African	/
	Mixed	0.999
	H-B	0.211
	P-B	0.667
	N	0.350
<i>XRCC1</i> -rs1799782	Overall	0.412
	H-B	0.717
	P-B	0.716
	N	/
	Y	0.948
	BC	0.693
	PCa	0.902
	<i>XRCC2</i> -rs3218536	Overall
Caucasian		0.331
H-B		0.315
Y		0.331
BC		/
<i>XRCC3</i> -rs1799796	Overall	0.681
	H-B	0.248
	P-B	/
	Y	0.612
	BC	0.612

<i>XRCC3</i> -rs861539	Overall	0.065
	Asian	0.624
	Caucasian	0.059
	Mixed	0.308
	H-B	0.294
	P-B	0.274
	N	0.302
	Y	0.967
	BC	0.588
<i>XRCC4</i> -rs28360071	Overall	<b>0.043</b>
	Asian	0.090
	H-B	0.090
	Y	0.090
	BC	/
<i>XRCC4</i> -rs1805377	Overall	0.094
	Asian	/
	Caucasian	0.370
	H-B	0.082
	Y	0.082
	BC	<b>0.009</b>
<i>XRCC4</i> -rs6869366	Overall	0.107
	Asian	0.174
	H-B	0.174
	Y	0.174
	BC	/
<i>XRCC7</i> -rs7003908	Overall	0.820
	Asian	0.648
	H-B	0.648
	Y	0.648
	BC	0.809
	PCa	/

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PCa: prostate cancer; BC: bladder cancer; H-B: hospital-based; P-B: population-based; Y:

study conformed to HWE; N: study did not conform to HWE.

**Supplementary table 4.** The PRISMA 2009 checklist for current meta-analysis and systematic review.

Section/topic	#	Checklist item	Reported on page #
<b>TITLE</b>			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	1
<b>ABSTRACT</b>			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	2
<b>INTRODUCTION</b>			
Rationale	3	Describe the rationale for the review in the context of what is already known.	2-3
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	3
<b>METHODS</b>			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	4-5
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	5
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	4-5
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	5

Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	5
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	6
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	6
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	6-7
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	6
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., $I^2$ ) for each meta-analysis.	6-7
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	7
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	6-7
<b>RESULTS</b>			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	7-8
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	8
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	10-11
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each	9-10

		intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	9-10
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	10-11
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	11-12
<b>DISCUSSION</b>			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	13-14
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	15-16
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	12-14
<b>FUNDING</b>			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	16

*From:* Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097

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