

TABLE W1

A look at included studies

AUTHOR / PUBLICATION YEAR/ TRIAL ID	QUALITY	INTERVENTIONS TREATMENT VS PLACEBO	N	NOTES
TROGLITAZONE				
Azziz 2003 ¹⁸ T2	Good	Placebo vs troglitazone 150 mg qd vs 300 mg qd vs 600 mg qd x 20 wks.	305	Same patients as T3 trial but assessed for different data as primary outcome. Drug withdrawn from market.
Azziz 2001 ¹⁹ T3	Good	Placebo vs troglitazone 150 mg qd vs 300 mg qd vs 600 mg qd x 20 wks.	305	Same patients as T2 trial but assessed for different data as primary outcome. Drug withdrawn from market.
Legro 2003 ²⁰ T1	Good	Placebo vs troglitazone 150 mg qd vs 300 mg qd vs 600 mg qd x 40 wks.	152	Double-blinded, multi-centered trial done in US PCOS women. 152 patients of 398 completed entire study. Drug withdrawn from market.
Mantzoros 1997 ⁶ T4	Poor	Placebo vs troglitazone 200 mg or 400 mg qd x 12 wks.	24	Did not present all raw data. Placebo were women without PCOS for baseline data. Drug withdrawn from market.
Dunaif 1996 ²¹ T5	Poor	Placebo vs troglitazone 200 mg or 400 mg qd x 12 wks.	24	During treatment, each patient served as her own control. Did not present raw data. Placebo had non-PCOS women for baseline data. Drug withdrawn from market.
ROSIGLITAZONE				
Ghazeeri 2003 ²² R1	Poor	Group 1 received rosiglitazone 4 mg bid and Group 2 received rosiglitazone 4 mg bid + CC on cycle days 5–9. Duration 2 months.	25	Both groups received rosiglitazone.
Shobokshi 2003 ²³ R2	Poor	Group 1 received rosiglitazone 4 mg qd and CC, group 2 received CC only on cycle days 5–9. Duration 12 wks.	50	Both groups received rosiglitazone.
PIOGLITAZONE				
Brettenthaler 2004 ⁷ P1	Fair	Run in phase where patients were given standardized diet and exercise regimen for 4 wks pretreatment. Then 3 months of trial with pioglitazone 30 mg qd or placebo.	35	Reported ovulation improvement in text, but no raw data was provided.
METFORMIN				
Eisenhardt 2006 ⁵ M20	Good	Metformin 1500 mg qd vs placebo x 12 wks.	45	Final total was only 38 patients, although data was given for 45 patients.
Chou 2003 ²⁴ M6	Good	Metformin 500 mg tid vs placebo x 3 months.	30	
Kelly 2002 ²⁵ M9	Good	Metformin 500 mg tid vs placebo x 6 months, then cross over.	10	Good design, but low numbers.
Moggetti 2000 ² M18	Good	Metformin 500 mg tid vs placebo x 6 months.	23	Trial ran 2 sets of experiments: Protocol A and Protocol B. In this meta-analysis we only used the data from Protocol A as Protocol B is not applicable for this trial.
CC, clomiphene citrate; FSH, follicle-stimulating hormone; GnRH, gonadotropin-releasing hormone; OCP, oral contraceptive pills; MVI, multivitamin.				

Table W1 continued

AUTHOR / PUBLICATION YEAR/ TRIAL ID	QUALITY	INTERVENTIONS TREATMENT VS PLACEBO	N	NOTES
Ortega-Gonzalez 2005 ⁸ M21	Fair	Metformin 850 mg bid vs pioglitazone 30 mg qd x 24 wks. In our data, metformin is control and pioglitazone is the intervention group.	35	Open design for drug regimen. 52 patients started trial, but only 35 were in final study and analysis.
Baillargeon 2004 ²⁶ M1	Fair	Placebo vs metformin 500 mg tid x 4–8 wks.	19	Same patients as M19 trial. Tested action of insulin in control and treatment group post 2-hour glucose tolerance test.
Palomba 2004 ¹⁰ M22	Fair	Group A = Diagnostic laparoscopy + metformin 850 mg bid x 6 months. Group B received laparoscopic ovarian drilling + MVI x 6 months.	109	All were CC-resistant women. All had laparoscopy. All women who did not ovulate received a course of CC 150 mg 5 times daily from d 3–7 of progesterone-induced bleeding.
Sturrock 2002 ²⁷ M11	Fair	Metformin 500 mg tid vs placebo x 12 wks. Patients in both groups that did not ovulate at 12 wks then received CC (up to 3 doses). Those that did not become pregnant underwent crossover trial.	21	Double-blinded RCT with crossover. However, those that did not ovulate at 12 wks received CC. All patients were CC-resistant PCOS patients.
Nestler 1996 ²⁸ M19	Fair	Placebo vs metformin 500 mg tid x 4–8 wks.	24	Unclear as to whether study was blinded
Ganie 2004 ²⁹ M23	Poor	Metformin 500 mg bid vs spironolactone 25 mg bid x 6 months.	69	Open-labeled. Initially, prior to treatment phase, all women were placed on a standard diet and exercise regimen.
George 2003 ³⁰ M7	Poor	Group 1: metformin 500 mg tid x 6 months, then CC added after 6 months if patient failed to ovulate. Group 2: hMG (Gonadotropin).	32	30 in each group initially. 7 remained in hMG group for final analysis. ALL were CC-resistant PCOS patients. Cannot evaluate pregnancy or ovulation rates as patients also got CC.
Harborne 2003 ³¹ M3	Poor	Metformin 500 mg tid vs OCP (placebo) x 12 months.	34	Placebo was OCP. Subjective assessment by patients for some of the data.
Malkawi 2003 ³² M4	Poor	Metformin 850 mg bid x 3 months vs laparoscopic ovarian drilling. Both groups received increasing doses of CC after 3 months if no ovulation achieved.	161	Both groups ultimately received increasing doses of CC if they failed to ovulate after 3 months. All were CC-resistant PCOS patients.
Morin-Papunen 2003 ³³ M2	Poor	Two groups of PCOS patients: obese and nonobese. Obese group: randomized to receive metformin 500 mg bid x 3 months then 1000 mg bid x 3 months. Other half received placebo (OCP). Nonobese group: randomized to receive metformin 500 mg bid x 3 months then 1000 mg bid x 3 months. Other half received placebo (OCP).	35	Same patients as in M8 and M17 trials. 8 nonobese women received metformin and 9 nonobese women received placebo. 2nd group with 8 obese women receiving metformin and 10 nonobese women receiving placebo. Data used for present study was from the analysis of all patients without regard to obese or nonobese as the goal was to study PCOS women regardless of obesity.

CC, clomiphene citrate; FSH, follicle-stimulating hormone; GnRH, gonadotropin-releasing hormone; OCP, oral contraceptive pills; MVI, multivitamin.

Table W1 continued

AUTHOR / PUBLICATION YEAR/ TRIAL ID	QUALITY	INTERVENTIONS TREATMENT VS PLACEBO	N	NOTES
Morin-Papunen 2003 ³⁴ M8	Poor	Two groups of PCOS patients: obese and nonobese. Obese group: randomized to receive metformin 500 mg bid x 3 months then 1000 bid x 3 months. Other half received placebo (OCP). Nonobese group: randomized to receive metformin 500 mg bid x 3 months then 1000 mg bid x 3 months. Other half received placebo (OCP).	35	Same patients as in M2 and M17 trials. 8 nonobese women received metformin and 9 nonobese received placebo. 2nd group with 8 obese women receiving metformin and 10 obese women receiving placebo. Placebo was OCP. Data used for present study was from the analysis of all patients without regard to obese or nonobese as the goal was to study PCOS women regardless of obesity.
Cicek 2003 ⁹ M5	Poor	Metformin 850 mg bid vs GnRH analogue x 3 months.	42	GnRH analogue was the placebo.
Elter 2002 ³⁵ M10	Poor	OCP vs OCP + metformin 500 mg bid x 4 months.	40	Patients not blinded to treatment. Placebo was the OCP-alone group.
Kocak 2002 ³⁶ M13	Poor	Metformin 850 mg bid vs placebo x 4 wks, then all received CC.	56	All patients were CC-resistant PCOS patients. All patients received CC after 1 month.
Yarali 2002 ³⁷ M12	Poor	Metformin 1700 mg qd vs placebo x 6 wks. All patients received FSH starting on Day 3.	32	All patients receive FSH. All patients were CC-resistant PCOS patients.
Jakubowicz 2001 ³⁸ M15	Poor	All patients received CC, then after 4 wks metformin 500 mg tid vs placebo x 4 wks, then all received CC again.	48	Multiple doses of CC received in both groups pre- and post-metformin or placebo treatment.
Ng 2001 ³⁹ M14	Poor	Metformin 500 mg tid vs placebo x 3 months, then all anovulatory women received CC.	15	All were CC-resistant women.
Vandermolen 2001 ⁴⁰ M16	Poor	Metformin 500 mg tid vs placebo x 7 wks. Then all anovulatory women received CC.	25	All were CC-resistant PCOS patients. Metformin and placebo patients received CC after 7 wks if they did not ovulate.
Morin-Papunen 2000 ⁴¹ M17	Poor	Two groups of PCOS patients: obese and nonobese. Obese group: randomized to receive metformin 500 mg bid x 3 months then 1000 mg bid x 3 months. Other half received placebo (OCP). Nonobese group: randomized to receive metformin 500 mg bid x 3 months then 1000 mg bid x 3 months. Other half received placebo (OCP).	32	Same patients as in M3 and M11 trials. 8 Nonobese women received metformin and 9 nonobese patients received placebo. 2nd group with 8 obese women received metformin and 10 obese patients received placebo. Placebo was OCP. Data used for present study was from the analysis of all patients without regard to obese or nonobese as the goal was to study PCOS women regardless of obesity.

CC, clomiphene citrate; FSH, follicle-stimulating hormone; GnRH, gonadotropin-releasing hormone; OCP, oral contraceptive pills; MVI, multivitamin.