Additional file 3. Summary of the study design and reported outcomes.

Study Country Study year	Study design Treatment: N	Trimester	Efficacy endpoint reported	Intermittent preventive treatment	Dosing of treatment
Naing, 1988 Myanmar 1985-1986 [36]	RCT Q: 23 AQ: 19	2,3	Fever clearance time Parasite clearance time	Not applicable (not Sub-Saharan Africa)	Q: quinine dihydrochloride 10mg salt/kg x 3 times/day for 7 days orally or intravenously depending on the clinical condition
Harinasuta, 1990 Thailand INA [37] (conference abstract)	RCT Q: 82 MFQ: 85	1,2,3	Parasite clearance on day 7	Not applicable (not Sub-Saharan Africa)	Q: quinine sulfate 600mg x 3times/day for 7 days
Nosten, 1993 Thailand 1989-1990 [23]	RCT Q5: 16 Q5 + spiramycin: 16	2,3	Recurrence rate within 28 days Parasite clearance time	Not applicable (not Sub-Saharan Africa)	Q: quinine sulphate 30mg salt/kg/day for 5 days spiramycin: 1.2M IU x 3 times/day for 5 days
Sowunmi, 1998 Nigeria 1994-1997 [38]	RCT AM: 23 AMMQ: 22	2,3	Cure rate on day 14 /28 Fever clearance time Parasite clearance time Peripheral parasitaemia of newborns at birth	Information not available	AM: 3.2 mg/kg given intramuscularly on day 0, followed by 1.6 mg/kg/day for 4 days AMMQ: single dose of 3.2 mg/kg AM intramuscularly on day 0, followed by 7.5mg/kg/day MQ for 2 days
Bounyasong, 2001 Thailand 1995-1998 [39]	RCT ASMQ: 29 Q: 28	2,3	Recrudescence within 28 days Fever clearance time Parasite clearance time	Not applicable (not Sub-Saharan Africa)	AS: Oral artesunate 2 mg/kg for the first dose, 1 mg/kg every 12 hours orally for 5 days minimally (The treatment might be extended until the parasites were absent and the patients had clinical improvement) MQ: 25mg/kg (split on day 6: 15 mg/kg and 6 hours later 10 mg/kg) Q: Quinine sulfate 10 mg/kg x 3 times/day for at least 7 days until the patients had clinically recovered

Additional file 3 continued.

Study Country Study year	Study design Treatment: N	Trimester	Efficacy endpoint reported	Intermittent preventive treatment	Dosing of treatment
McGready, 2000 Thailand 1995-1997 [40]	RCT Q: 42 ASMQ: 66	2,3	Cure rates on day 63 Fever clearance by 48h Parasite clearance by 48h	Not applicable (not Sub-Saharan Africa)	Q: 10 mg salt/kg x 3 times/day for 7 days AS (Guilin): 4mg/kg/day for 3 days MQ (Lariam): 25 mg base/kg given as 15 mg/kg on day 1 and 10 mg/kg on day 2
McGready, 2001a Thailand 1997-2000 [41]	RCT QC: 65 AS: 64	2,3	Cumulative cure rate on day 42 Fever clearance by 48h Parasite clearance by 48h Gametocyte carriage	Not applicable (not Sub-Saharan Africa)	Q: 10 mg salt/kg x 3 times/day for 7 days Clindamycin: 5 mg/kg x 3 times/day for 7 days AS (Guilin): 2 mg/kg daily on days 0, 1, 2, 3 and 4 and 1 mg/kg daily on days 5 and 6 (total 10mg/kg)
McGready, 2005 Thailand 2001-2003 [42]	RCT AAP: 39 Q: 42	2,3	Cumulative cure rate at delivery or on day 63 Fever clearance on day 2, 3 & 4 Parasite clearance time Gametocyte carriage	Not applicable (not Sub-Saharan Africa)	AS (Guilin): 4mg/kg/day for 3 days (50mg tablet) AP (Malarone): (atovaquone 20 mg/kg/day and 8 mg/kg/d) for 3 days (250+100mg tablet) With 200mL of chocolate milk (8% fat) Q: 10 mg salt/kg x 3 times/day for 7 days
Adam, 2004a Sudan 2002-2003 [43]	RCT Q (low dose): 18 Q (standard dose): 24	2,3	Failure rate within 28 days Fever clearance time Parasite clearance time	Information not available	Low dose group: quinine 10mg/kg x 2 times/day for 7 days Standard dose group: quinine 10mg/kg x 3 times/day for 7 days Quinine was administered intravenously until patients could tolerate
Kalilani, 2007 Malawi 2003-2004 [44]	RCT ASSP: 47 SP: 47 SP + azithromycin: 47	2	Recrudescence rate within 28 days Fever clearance on day 3 Parasite clearance on day 2 & 3 Parasitaemia at delivery Prevalence of placental malaria	The second dose of the same drug was administered at least 4 weeks after the first dose instead of IPTp	AS: 200mg/day for 3 days SP: 1500+75mg as a single dose
McGready, 2008 Thailand 2004-2006 [45]	RCT AL: 125 AS: 128	2,3	Cumulative cure rate at delivery or on day 42 Fever clearance time Parasite clearance time Placental / cord blood malaria	Not applicable (not Sub-Saharan Africa)	AL (Coartem): (80+480mg) x 2 times/day for 3 days (at 0, 8, 24, 36, 48 and 60 h) With 250mL of chocolate milk containing 7g of fat AS (Guilin): 2mg/kg x 1 time/day for 7 days (50mg tablet)

Additional file 3 continued.

Study Country Study year	Study design Treatment: N	Trimester	Efficacy endpoint reported	Intermittent preventive treatment	Dosing of treatment
Mutabingwa, 2009 Tanzania 2004-2006 [46]	RCT ASAQ: 83 AQSP: 80 CD: 81 SP: 28	2,3	Recurrence rate within 28 days Gametocyte carriage	Information not available	AQ: 10 mg/kg/day for 3 days AS: 4 mg/kg/day for 3 days
Kaye, 2008 Uganda 2006 [47]	RCT AL: 57 CD: 57	2,3	Cure rate on day 28 Fever clearance Parasite clearance	Information not available	AL (Coartem): (80+400mg) x 2 times/day for 3 days *Assumed to be 80+480mg
Piola, 2010 Uganda 2006-2009 [48]	RCT AL: 152 Q: 152	2,3	Cure rate and cumulative recurrence by day 42 Cure rate and cumulative recurrence by delivery Fever clearance on day 0, 1, 2 & 3 Parasite clearance on day 2 & 3 Gametocyte clearance within 7 days Gametocyte carriage Placental malaria	IPTp was interrupted while study period	AL: (80+480mg) x 2 times/day for 3 days (at 0, 8, 24, 36, 48 and 60 h) With 200mL milk Q: quinine hydrochloride 10 mg base/kg x 3 times/day for 7 days (300 mg of the base per tablet)
Carmona-Fonseca, 2013 Colombia 2008-2011 [49]	RCT AL: 15 ASMQ: 15	2,3	Cure rate on day 28	Not applicable (not Sub-Saharan Africa)	AL (80mg+480mg) x 2times/day for 3 days AS 4 mg/kg x 1 time/day for 3 days (50mg tablet) MQ 25 mg base/kg, divided into 2 or 3 days (250mg tablet)
D'Alessandro, 2016 Burkina Faso, Ghana, Malawi and Zambia 2010-2013 [50, 51]	RCT AL: 880 ASAQ: 842 ASMQ: 848 DP: 853	2,3	Cure rate on day 63 Parasite clearance on day 1 & 2 Prevalence of placental malaria Gametocytaemia	Some patients received IPTp-SP before the trial IPTp-SP was restarted after 63 days	AL (Coartem): (80+480mg) x 2times/day for 3 days With recommendation to take high-fat food or drinks together ASAQ (Winthrop): (200+540mg) x 1 time/day for 3 days ASMQ (Farmanguinhos): (200+440mg/day) x 1 time/day for 3 days DP (Eurartesim): (120+960mg) x 1time/day for 3 days

Additional file 3 continued.

Study Country Study year	Study design Treatment: N	Trimester	Efficacy endpoint reported	Intermittent preventive treatment	Dosing of treatment
Osarfo, 2017 Ghana 2011-2012 [52]	RCT ASAQ: 205 DP: 212	2,3	Cure rate on day 42 Cure rate on day 28 Placental malaria	IPTp-SP was not given during the study period (42 days)	ASAQ (Arsuamoon) AS 4mg/kg and AQ 10mg/kg in twelve hourly doses over 3 days DP (P-alaxin) Total dosing of 6.75mg/kg DHA and 55mg/kg PPQ over 3 days rounded to the nearest half tablet
Onyamboko, 2015 DRC 2013-2014 [53] (conference abstract)	RCT AL: 48 AL5: 48	2,3	Cure rate on day 42 Placental malaria	Information not available	AL for 3 days (6 doses) AL for 5 days (10 doses) With milk
Ukah, 2015 Nigeria 2013 [54]	RCT AL: 75 ASAQ: 75	2,3	Cure rate on day 28 Symptom clearance time Parasite clearance by day 3	IPTp-SP x 2	AL (GloatemForte): (80+480mg) x 2 times/day for 3 days ASAQ (Winthrop): (100+270mg) x 2 times/day for 3 days
Iribhogbe, 2017a Nigeria 2013-2014 [55]	RCT AL: 40 ASAQ: 40	2,3	Recurrence within 28 days Fever clearance on day 3 Parasite clearance on day 3	Information not available	AL: (80+480mg) x 2 times/day for 3 days ASAQ: (300/810mg) x once a day for 3 days
CTRI/2009/091/001055 India 2010-2015 [56] (registered trial)	RCT ASMQ (500) ASSP (500) * Planned number	2,3	Cure rate on day 63 Recurrence by day 63	Not applicable (not Sub-Saharan Africa)	AS: 200mg/day for 3 days MQ: 440mg/day for 3 days AS: 200mg/day for 3 days SP: 1500+75mg single dose on day1

Additional file 3 continued.

Study Country Study year	Study design Treatment: N	Trimester	Efficacy endpoint reported	Intermittent preventive treatment	Dosing of treatment
NCT01054248 Thailand 2010-2016 [57] (registered trial)	RCT AL4 (335) ASMQ (335) DP (335) *Planned number of participants including vivax malaria patients	2,3	Cure rate on day 63 or until delivery Gametocyte carriage Placental malaria	Not applicable (not Sub-Saharan Africa)	AL(Coartem): (100+600mg) x 2 times/day for 4 days (at 0, 8, 24, 36, 48, 60, 72 and 84 hours) with 100mL chocolate milk AS(Guillin Factory no.1, 50mg/tablet): 4mg/kg/day for 3 days (rounded to the nearest quarter tablet) MQ(Mequin, 250mg/tablet): 8mg/kg/day for 3 days (rounded to the nearest quarter tablet) ASMQ(Farmanguinhos: 100+220mg/tablet): 2 tablets/day for 3 days (if this fixed combination is available) DP (Holley-Cotec:40+320mmg/tablet): (2.4 mg/kg DHA and 20 mg/kg PPQ) x 1 time/day for 3 days (rounded to the nearest half tablet)
McGready, 2003a Thailand 2000-2001 [58]	PK AAP: 24	2,3	Cure rate on day 28 Fever clearance by 48h Parasite clearance time	Not applicable (not Sub-Saharan Africa)	AS (Guilin): 4mg/kg/day for 3 days (50mg tablet) AP (Malarone): (atovaquone 20 mg/kg/day and 8 mg/kg/d) for 3 days (250+100mg tablet) With 200mL of chocolate milk (8% fat)
Adam, 2012 Sudan 2007-2008 [59]	PK study DP: 12 (control: 12 matched non-pregnant women)	2,3	Cure rate on day 63 Fever clearance within 2 days Parasite clearance within 2 days	Information not available	DHA/PQ-phosphate (DuoCotecxin): 2.4 mg of DHA/kg/day and 20 mg of PQ (as phosphate)/kg/day rounded to the nearest half tablet for 3 days
Onyamboko, 2011 DRC 2007-2008 [60]	PK ASSP: 24 (control: 14 non-pregnant women)	2,3	Recurrence within 28 days Parasite clearance by 12 h	Information not available	AS (Guilin): 200mg once SP: 1725mg 24 hours after AS administration

Additional file 3 continued.

Study Country Study year	Study design Treatment: N	Trimester	Efficacy endpoint reported	Intermittent preventive treatment	Dosing of treatment
McGready, 2012 Thailand 2008-2009 [61]	PK AS: 20	2,3	Cumulative cure rate on day 63 Fever clearance time Parasite clearance time	Not applicable (not Sub-Saharan Africa)	Group 1: intravenous AS (Guilin) 4mg/kg on day 0 followed by oral AS 4mg/kg for 6 days Group 2: oral AS (Guilin) 4mg/kg on day 0 followed by intravenous AS 4mg/kg on day 1 followed by oral artesunate 4mg/kg daily for 5 days
Rijken, 2011 Thailand 2008 [62]	PK DP: 24 (control: 24 matched non-pregnant women)	2,3	Cumulative cure rate on day 63 Fever clearance Parasite clearance Placental malaria	Not applicable (not Sub-Saharan Africa)	DP (Holley Pharm) Total dosing of 6.5 mg/kg DHA and 51.2mg/kg PPQ over 3 days The tablets (40+320mg) were divided to the nearest quarter
Valea, 2014 Burkina Faso 2008-2009 [63]	PK ASMQ: 24 (control: 24 non-pregnant women)	2,3	Cure rate on day 63 Parasite clearance on day 3	IPTp-SP x 2	ASMQ (Farmanguinhos) AS: 3.6mg/kg x 1 time/day for 3 days MQ: 8mg/kg x 1 time/day for 3 days (<50kg: 150+330mg/day 50-60kg: 200+440mg/day >60kg: 250+550mg/day)
Juma, 2014 Kenia 2012 [64] (conference abstract)	PK AL: 45 (control: 25 non-pregnant women)	2,3	Treatment response on day 28	Information not available	AL: (80+480mg) x 2 times/day for 3 days (at hours 0, 8, 24, 36, 48 and 60)
Mosha, 2014 Tanzania 2012 [65]	PK AL: 33	2,3	Cure rate / recurrence rate on day 42 Number of recrudescence	Information not available	AL (Coartem): (80+480mg) x 2 times/day for 3 days (at 0, 8, 24, 36, 48 and 60 h) With 200mL of milk containing 4.5g of fat
Nyunt, 2016 Uganda 2013-2014 [66]	PK AL: 30 (control: 30 non pregnant adults)	2,3	Cure rate / recurrence rate on day 42 Parasite clearance on day 2	SP x 2 (16-24w, 28-36 weeks)	AL (Coartem): (80+480mg) x 2 times/day for 3 days With 200mL milk

Additional file 3 continued.

Study Country Study year	Study design Treatment: N	Trimester	Efficacy endpoint reported	Intermittent preventive treatment	Dosing of treatment
Mutagonda, 2017 Tanzania 2014-2015 [67, 68]	PK AL: 92	2,3	Cure rate / recurrence rate on day 28 (Cumulative cure rate on day 28 was reported in sub-cohort [66])	Information not available	AL (Coartem): (80+480mg) x 2 times/day for 3 days (at 0, 8, 24, 36, 48 and 60 h) With milk containing 4.5g of fat
Adam, 2004b Sudan 2000-2002 [69]	Single-arm Q: 26	1	Cure rate on day 28 Fever clearance within 3 days Parasite clearance within 3 days	Information not available	Q: 30 mg salt/kg/day for 7 days Quinine was administered intravenously until patients could tolerate
Adam, 2004c Sudan 1997-2001 [70]	Single-arm AM im: 28	1,2,3	Number of recurrence Parasite clearance on day 7	Information not available	AM(Kunming): given intramuscularly, 80mg initially then 80mg after 12 h, then 80mg daily (total 480 mg)
Adegnika, 2005 Gabon 2003-2004 [71]	Single-arm Q: 50	2,3	Cure rate on day 28 Cure rate on day 56 Prevalence of placental malaria	Information not available	Q:10 mg salt/kg x 3 times/day for 7 days rounded to the nearest half tablet of 300mg quinine
Adam, 2006 Sudan 2004-2005 [72]	Single-arm ASSP: 32	2,3	Cure rate on day 28 Fever clearance within 2 days Parasite clearance within 2 days	Information not available	AS: 200mg/day for 3 days on days 0—2 SP: 1500+75mg given as a single dose on day 0
Ndiaye, 2011 Senegal 2009-2011 [73] (conference abstract)	Single-arm ASAQ: 28	2,3	Recurrence rate within 42 days Parasite clearance Fever clearance Placental malaria Congenital malaria	Information not available	ASAQ (Coarsucam) AS: 200mg/day for 3 days AQ: 540mg/day for 3 days

Additional file 3 continued.

Study Country Study year	Study design Treatment: N	Trimester	Efficacy endpoint reported	Intermittent preventive treatment	Dosing of treatment
Iribhogbe, 2017b Nigeria 2013-2014 [74]	Single-arm ASAQ: 50	2,3	Recurrence within 28 days	INA	AS: 4mg/kg/day for 3 days AQ: 10mg/kg/day for 3 days
McGready, 1998a Thailand 1992-1996 [75]	Observational cohort AS: 61 AMMQ: 3 ASMQ: 26	1,2,3	Recurrence within 28 days Parasite clearance on day 7 Gametocyte carriage	Not applicable (not Sub-Saharan Africa)	AS (Guilin): 4 mg/kg on day 0, 2 mg/kg on days 1 and 2, and 1 mg/kg on days 3-6 (total dose of 12 mg/kg) or 4 mg/kg/day for 3 days Mefloquine (Laham): 25 mg/kg, usually as a split regimen on days 5 and 6, was added when there had been no previous intake of mefloquine during the pregnancy AM (Kunming): a total dose of 12 mg/kg over 3 or 5 d. AM was given intramuscularly if the patient could not tolerate oral treatment
McGready, 1998b Thailand 1991-1996 [76]	Observational cohort Q Primary treatment: 113 Retreatment: 91	1,2,3	Recurrence within 42 days Parasite clearance on day 3 Fever clearance at 48h Gametocyte carriage	Not applicable (not Sub-Saharan Africa)	Q: 30 mg salt/kg/day for 7 days
McGready, 2001b Thailand 1992-2000 [77]	Observational cohort artemisinins Primary treatment: 229 Retreatment: 310	1,2,3	Cumulative recurrence rate within 42 days Proportion of recurrence within 42 days Fever clearance time Parasite clearance time Gametocyte carriage	Not applicable (not Sub-Saharan Africa)	AS (Guilin): 12-14mg/kg in total over 3 or 7 days MQ (Lariam): 25 mg base/kg given over 2 days AP (Malarone): (atovaquone 20 mg/kg/day and 8 mg/kg/d) for 3 days

Additional file 3 continued.

Study Country Study year	Study design Treatment: N	Trimester	Efficacy endpoint reported	Intermittent preventive treatment	Dosing of treatment
Laochan, 2015 Thailand 1994-2009 [78]	collation of an observational cohort and interventional studies‡ AS: 151, AAP: 11, AC: 143, AL: 43, ASMQ: 5, DP 29, Q: 476, QC: 29 MQ: 22	1,2,3	Description of recurrent episodes of malaria with PCR	Not applicable (not Sub-Saharan Africa)	Q: 10 mg salt/kg x 3 times/day for 7 days AS (Guilin): 2 mg/kg x 1 time/day for 7 days (total dose 10–16 mg/kg) AS (Guilin): 4mg/kg x 1 time/day for 3 days AL (Coartem): (80+480mg) x 2 times/day for 3 days MQ: 25 mg/kg stat dose or over two days DP (Duo-Cotexcin): DHA 3 mg/kg, PPQ 15–17 mg/kg x 1 time/day for 3 days AP (Malarone): (atovaquone 20 mg/kg/day and 8 mg/kg/d) for 3 days Clindamycin: 300mg x 3 times/day for 7 days
McGready, 2002 Thailand 1995-2000 [79]	observational Q novel: 25 retreatment: 209	1	Recurrence within 28 days Fever clearance Parasite clearance Gametocyte carriage	Not applicable (not Sub-Saharan Africa)	Q: 30 mg salt/kg/day for 7 days
McGready, 2003b Thailand 1999-2001 [80]	Observational cohort AAP: 27	1,2,3	Recrudescence within day 42 Fever clearance by 48h Parasite clearance time Gametocyte carriage Placental malaria	Not applicable (not Sub-Saharan Africa)	AS: 4mg/kg/day for 3 days or 2mg/kg/day for 7 days (with a loading dose of 4 mg/kg in hyperparasitaemic patients with >4%) AP: (atovaquone 20 mg/kg/day and 8 mg/kg/d) for 3 days
Villegas, 2005 Venezuela 2002-2005 [81] (conference abstract)	Observational cohort ASMQ: 27	INA	INA (efficacy)	Not applicable (not Sub-Saharan Africa)	ASMQ for 2-3 days
Rijken, 2008 Thailand 2006-2007 [82]	Observational cohort DP: 62	1,2,3	Cumulative cure rate by day 63 Fever clearance on day 2 Parasite clearance time	Not applicable (not Sub-Saharan Africa)	DP (Holley Pharm) Total dosing of 6.5 mg/kg DHA and 51.2mg/kg PPQ over 3 days (40+320mg tablet)

Additional file 3 continued.

Study Country Study year	Study design Treatment: N	Trimester	Efficacy endpoint reported	Intermittent preventive treatment	Dosing of treatment
Rulisa, 2012 Rwanda 2007-2009 [83]	Observational cohort AL: (1072)†	1,2,3	Cure rate on day 56 Recurrence within 56 days	23.4% received IPTp-SP	Rwanda National Guideline
Kalilani, 2013 and Cohee, 2016 Malawi 2009-2010 [84, 85]	Observational cohort AL: 56	1,2	Recrudescence rate by delivery Placental malaria Temporal relationship between peripheral parasitaemia and placental malaria	IPTp-SP x 3	AL: (80+480mg) x 2 times/day for 3 days (at 0h, 8h, day2 AM, day2 PM, day3 AM, day3 PM)

AAP: artesunate-atovaquone-proguanil, AC: artesunate-clindamycin, AL: artemether-lumefantrine, AQ: amodiaquine, AS: artesunate, CD: chlorproguanil-Dapsone, CHQ: chloroquine, DP: dihydroartemisinin(DHA)-piperaquine(PPQ), DRC: Democratic Republic of Congo, ECG: electrocardiography, INA: information not available, MQ: mefloquine, N: number of pregnant women included, PCR: polymerase chain reaction, PK: pharmacokinetic study, Q: quinine, QC: quinine-clindamycin, RCT: randomised controlled trial, SP: sulfadoxine-pyrimethamine. *Planned number of participants in clinical trial registry. NCT01054248 includes P. vivax patients. † This number includes patients without parasitological confirmation. The exact number of parasitologically confirmed patients is not known. ‡ This study included patients enrolled in other studies [40-42, 45, 58, 61, 61, 80, 82].