

### Supplementary Material File 3: Reasons for inclusion and exclusion of RCTs in the NMA

**Table 1: Reasons for inclusion and exclusion of RCTs in the network meta-analysis of overall survival**

Study	N randomised	Intervention	Comparator(s)	Reason for inclusion/exclusion
<b>Studies included in the network (n=16)</b>				
Aikata, 2006 <sup>1</sup>	44	RFA + TACE	RFA	Study reported OS rates (at 3 years) and p-values of the log-rank test, which allowed computation of HR and SE
Brunello, 2008 <sup>2</sup>	139	RFA	PEI	Study reported HR and 95% CI.
Chen, 2014 <sup>3</sup>	136	RFA + Iodine-125	RFA	Study reported HR and 95% CI.
Fang, 2014 <sup>4</sup>	120	RFA	Hepatectomy	Data extracted from KM plots, using p-values, were used to compute HR and SE.
Ferrari, 2007 <sup>5</sup>	28	Laser ablation	RFA	Data extracted from KM plots, using p-values, were used to compute HR and SE.
Giorgio, 2011 <sup>6</sup>	285	RFA	PEI	Study reported HR and 95% CI.
Huang, 2010 <sup>7</sup>	159	RFA	Resection	Data extracted from KM plots were used to compute HR and SE.
Huo, 2003 <sup>8</sup>	55	TACE + PAI	PAI	Data extracted from KM plots, using p-values, were used to compute HR and SE.
Koda, 2001 <sup>9</sup>	52	TACE + PEI	PEI	Data extracted from KM plots were used to compute HR and SE.
Lin, 2005 <sup>10</sup>	187	RFA	PEI, PAI	Data extracted from KM plots were used to compute HR and SE.
Liu, 2016 <sup>11</sup>	135	TACE + RFA	Partial hepatectomy	Data extracted from KM plots were used to compute HR and SE.
Ng, 2017 <sup>12</sup>	55	RFA	Resection	Data extracted from KM plots were used to compute HR and SE.
Shibata, 2009 <sup>13</sup>	89	RFA + TACE	RFA	Data extracted from KM plots were used to compute HR and SE.
Shiina, 2005 <sup>14</sup>	232	RFA	PEI	Data extracted from KM plots were used to compute HR and SE.
Vietti Violi, 2018 <sup>15</sup>	152	MWA	RFA	Data extracted from KM plots were used to compute HR and SE.
Zhang, 2007 <sup>16</sup>	60	RFA + PEI	RFA	Study reported OS rates (at 3 years) and p-values of the log-rank test, which allowed computation of HR and SE
<b>Studies excluded from the network (n=11)</b>				
Chen, 2005 <sup>17</sup>	47	RFA + PEI	RFA	Limited data available.
Chen 2005 <sup>18</sup>	55	RFA	Resection	Limited data available: KM plot did not include the number at risk.
Chen, 2006 <sup>19</sup>	79	Percutaneous local ablative therapy	Partial hepatectomy	Limited data available: KM plot did not include the number at risk.
Gan, 2004 <sup>20</sup>	38	RFA + chemotherapy	RFA	No OS data reported.
Huang, 2005 <sup>21</sup>	82	PEI	Resection	Limited data available: Study reported OS rates, but no p-values.
Izumi, 2019 <sup>22</sup>	308	RFA	Surgery	No OS data reported.
Lencioni, 2003 <sup>23</sup>	104	PEI	RFA	Limited data available: OS results not reported for the relevant subgroup only (i.e. $\leq 3$ cm)
Lin, 2004 <sup>24</sup>	114	RFA	Low dose PEI, high dose PEI	Limited data available: OS results not reported for the relevant subgroup
Mizuki, 2010 <sup>25</sup>	30	TACE + PEI	PEI	Limited data available: KM plots did not include the number at risk.
Orlacchio, 2014 <sup>26</sup>	30	Laser ablation	RFA	There were 0 deaths in both arms.
Yan, 2016 <sup>27</sup>	120	MWA + sorafenib	Resection	Limited data available: KM plots did not include the number at risk.

**Table 2: Reasons for inclusion and exclusion of RCTs in the NMA of progression-free survival**

Study	N randomised	Intervention	Comparator(s)	Reason for inclusion/exclusion
<b>Studies included in the network (n=6)</b>				
Fang, 2014 <sup>4</sup>	120	RFA	Hepatectomy	Data extracted from KM plots, using p-values were used to compute HR and SE.
Izumi, 2019 <sup>22</sup>	308 *	RFA	Surgery	Study reported HR and 95% CI.
Lencioni, 2003 <sup>23</sup>	104	PEI	RFA	Data extracted from KM plots were used to compute HR and SE.
Lin, 2005 <sup>10</sup>	187	RFA	PEI, PAI	Data extracted from KM plots were used to compute HR and SE.
Ng, 2017 <sup>12</sup>	55	RFA	Resection	Data extracted from KM plots were used to compute HR and SE.
Shibata, 2009 <sup>13</sup>	89	RFA + TACE	RFA	Data extracted from KM plots were used to compute HR and SE.
<b>Studies excluded from the network (n=21)</b>				
Aikata, 2006 <sup>1</sup>	44	RFA + TACE	RFA	No PFS data reported.
Brunello, 2008 <sup>2</sup>	139	RFA	PEI	No PFS data reported.
Chen, 2005 <sup>17</sup>	47	RFA + PEI	RFA	No PFS data reported.
Chen 2005 <sup>18</sup>	55	RFA	Resection	No PFS data reported.
Chen, 2006 <sup>19</sup>	79	Percutaneous local ablative therapy	Partial hepatectomy	Limited data available: KM plot did not include the number at risk.
Chen, 2014 <sup>3</sup>	136	RFA + Iodine-125	RFA	No PFS data reported.
Ferrari, 2007 <sup>5</sup>	28	Laser ablation	RFA	No PFS data reported.
Gan, 2004 <sup>20</sup>	38	RFA + chemotherapy	RFA	No PFS data reported.
Giorgio, 2011 <sup>6</sup>	285	RFA	PEI	No PFS data reported.
Huang, 2005 <sup>21</sup>	82	PEI	Resection	Limited data available
Huang, 2010 <sup>7</sup>	159	RFA	Resection	No PFS data reported.
Huo, 2003 <sup>8</sup>	55	TACE + PAI	PAI	No PFS data reported.
Koda, 2001 <sup>9</sup>	52	TACE + PEI	PEI	No PFS data reported.
Lin, 2004 <sup>24</sup>	114	RFA	Low dose PEI, high dose PEI	Limited data available: results not reported for the relevant subgroup
Liu, 2016 <sup>11</sup>	135	TACE + RFA	Partial hepatectomy	No PFS data reported.
Mizuki, 2010 <sup>25</sup>	30	TACE + PEI	PEI	Limited data available: KM plots did not include the number at risk.
Orlacchio, 2014 <sup>26</sup>	30	Laser ablation	RFA	Study only reported local disease-free survival.
Shiina, 2005 <sup>14</sup>	232	RFA	PEI	No PFS data reported.
Vietti Violi, 2018 <sup>15</sup>	152	MWA	RFA	Study only reported local progression-free survival.
Yan, 2016 <sup>27</sup>	120	MWA + sorafenib	Resection	Limited data available: KM plots did not include the number at risk.
Zhang, 2007 <sup>16</sup>	60	RFA + PEI	RFA	No PFS data reported.

\*293 patients were included in the NMA because 15 patients were excluded before receiving treatment

**Table 3: Reasons for inclusion and exclusion of RCTs in the NMA of overall recurrence**

Study	N randomised	Intervention	Comparator(s)	Reason for inclusion/exclusion
<b>Studies included in the network (n=7)</b>				
Chen, 2014 <sup>3</sup>	136	RFA + Iodine-125	RFA	Study reported RR with 95% CI.
Fang, 2014 <sup>4</sup>	120	RFA	Hepatectomy	Study reported RR with 95% CI.
Gan, 2004 <sup>20</sup>	38	RFA + chemotherapy	RFA	Study reported RR with 95% CI.
Huang, 2005 <sup>21</sup>	82	PEI	Resection	Study reported RR with 95% CI.
Mizuki, 2010 <sup>25</sup>	30	TACE + PEI	PEI	Study reported RR with 95% CI.
Shiina, 2005 <sup>14</sup>	232	RFA	PEI	Study reported RR with 95% CI.
Yan, 2016 <sup>27</sup>	120	MWA + sorafenib	Resection	Study reported RR with 95% CI.
<b>Studies excluded from the network (n=20)</b>				
Aikata, 2006 <sup>1</sup>	44	RFA + TACE	RFA	No overall recurrence data reported (only local recurrence).
Brunello, 2008 <sup>2</sup>	139	RFA	PEI	No overall recurrence data reported (only distant recurrence).
Chen, 2005 <sup>17</sup>	47	RFA + PEI	RFA	No overall recurrence data reported (only local recurrence).
Chen 2005 <sup>18</sup>	55	RFA	Resection	No recurrence data reported.
Chen, 2006 <sup>19</sup>	79	Percutaneous local ablative therapy	Partial hepatectomy	No recurrence data reported.
Ferrari, 2007 <sup>5</sup>	28	Laser ablation	RFA	No recurrence data reported.
Giorgio, 2011 <sup>6</sup>	285	RFA	PEI	No overall recurrence data reported (only local recurrence).
Huang, 2010 <sup>7</sup>	159	RFA	Resection	No recurrence data reported.
Huo, 2003 <sup>8</sup>	55	TACE + PAI	PAI	No recurrence data reported.
Izumi, 2019 <sup>22</sup>	308	RFA	Surgery	No recurrence data reported.
Koda, 2001 <sup>9</sup>	52	TACE + PEI	PEI	No overall recurrence data reported (only local recurrence).
Lencioni, 2003 <sup>23</sup>	104	PEI	RFA	No overall recurrence data reported (only local recurrence).
Lin, 2004 <sup>24</sup>	114	RFA	Low dose PEI, high dose PEI	No overall recurrence data reported (only local recurrence).
Lin, 2005 <sup>10</sup>	187	RFA	PEI, PAI	No overall recurrence data reported (only local recurrence).
Liu, 2016 <sup>11</sup>	135	TACE + RFA	Partial hepatectomy	No recurrence data reported.
Ng, 2017 <sup>12</sup>	55	RFA	Resection	No recurrence data reported.
Orlacchio, 2014 <sup>26</sup>	30	Laser ablation	RFA	No overall recurrence data reported (only local recurrence).
Shibata, 2009 <sup>13</sup>	89	RFA + TACE	RFA	No overall recurrence data reported (only local recurrence).
Vietti Violi, 2018 <sup>15</sup>	152	MWA	RFA	No overall recurrence data reported (only local recurrence).
Zhang, 2007 <sup>16</sup>	60	RFA + PEI	RFA	No recurrence data reported.

**Table 4: Reasons for inclusion and exclusion of RCTs for the NMA of local recurrence**

Study	N randomised	Intervention	Comparator(s)	Reason for inclusion/exclusion
<b>Studies included in the network (n=10)</b>				
Aikata, 2006 <sup>1</sup>	44	RFA + TACE	RFA	Study reported recurrence rates, allowing the computation of RR and 95% CI.
Chen, 2005 <sup>17</sup>	47	RFA + PEI	RFA	Study reported recurrence rates, allowing the computation of Rs and 95% CI.
Giorgio, 2011 <sup>6</sup>	285	RFA	PEI	Study reported recurrence rates, allowing the computation of RR and 95% CI.
Koda, 2001 <sup>9</sup>	52	TACE + PEI	PEI	Study reported RR and 95% CI.
Lencioni, 2003 <sup>23</sup>	104	PEI	RFA	Study reported RR and 95% CI.
Lin, 2004 <sup>24</sup>	114	RFA	Low dose PEI, high dose PEI	Study reported recurrence rates, which allowed the computation of RRs and 95% CI.
Lin, 2005 <sup>10</sup>	187	RFA	PEI, PAI	Study reported RRs and 95% CI.
Orlacchio, 2014 <sup>26</sup>	30	Laser ablation	RFA	Study reported RR and 95% CI.
Shibata, 2009 <sup>13</sup>	89	RFA + TACE	RFA	Study reported RR and 95% CI.
Vietti Violi, 2018 <sup>15</sup>	152	MWA	RFA	Study reported RR and 95% CI.
<b>Studies excluded from the network (n=17)</b>				
Brunello, 2008 <sup>2</sup>	139	RFA	PEI	No local recurrence data reported (only distant recurrence).
Chen 2005 <sup>18</sup>	55	RFA	Resection	No recurrence data reported.
Chen, 2006 <sup>19</sup>	79	Percutaneous local ablative therapy	Partial hepatectomy	No recurrence data reported.
Chen, 2014 <sup>3</sup>	136	RFA + Iodine-125	RFA	No local recurrence data reported (only overall recurrence).
Fang, 2014 <sup>4</sup>	120	RFA	Hepatectomy	No local recurrence data reported (only overall recurrence).
Ferrari, 2007 <sup>5</sup>	28	Laser ablation	RFA	No recurrence data reported.
Gan, 2004 <sup>20</sup>	38	RFA + chemotherapy	RFA	No local recurrence data reported (only overall recurrence).
Huang, 2005 <sup>21</sup>	82	PEI	Resection	No local recurrence data reported (only overall recurrence).
Huang, 2010 <sup>7</sup>	159	RFA	Resection	No recurrence data reported.
Huo, 2003 <sup>8</sup>	55	TACE + PAI	PAI	No recurrence data reported.
Izumi, 2019 <sup>22</sup>	308	RFA	Surgery	No recurrence data reported.
Liu, 2016 <sup>11</sup>	135	TACE + RFA	Partial hepatectomy	No recurrence data reported.
Mizuki, 2010 <sup>25</sup>	30	TACE + PEI	PEI	No local recurrence data reported (only overall recurrence).
Ng, 2017 <sup>12</sup>	55	RFA	Resection	No recurrence data reported.
Shiina, 2005 <sup>14</sup>	232	RFA	PEI	No local recurrence data reported (only overall recurrence).
Yan, 2016 <sup>27</sup>	120	MWA + sorafenib	Resection	No local recurrence data reported (only overall recurrence).
Zhang, 2007 <sup>16</sup>	60	RFA + PEI	RFA	No recurrence data reported

## References

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