

## Appendix 1. Search Strategy

Last search performed on July 2023

Number	Search entry
1	Hernias, Diaphragmatic, Congenital/
2	((congeni* and (diaphragm* adj6 (herni* or defect* or problem*))) or ((Morgagni* or bochdalek* adj3 herni*)).ab,ti,kf.
3	1 or 2
4	*Hernias, Diaphragmatic, Congenital/di, dg [Diagnosis, Diagnostic Imaging]
5	*Hernia, Diaphragmatic/di, dg [Diagnosis, Diagnostic Imaging]
6	*prenatal diagnosis/ or *ultrasonography, prenatal/
7	prenatal diagnosis/mt or ultrasonography, prenatal/mt
8	Ultrasonography/
9	*Magnetic Resonance Imaging/
10	exp Lung Volume Measurements/
11	Head/di, dg, em [Diagnosis, Diagnostic Imaging, Embryology]
12	Lung/di, dg, em [Diagnosis, Diagnostic Imaging, Embryology]
13	Liver/di, dg, em [Diagnosis, Diagnostic Imaging, Embryology]
14	stomach/di, dg, em [Diagnosis, Diagnostic Imaging, Embryology]
15	Organ Size/
16	Hernias, Diaphragmatic, Congenital/ep [epidemiology]
17	Hernias, Diaphragmatic/ep [epidemiology]
18	or/4-17
19	3 and 18
20	Hernias, Diaphragmatic, Congenital/di, dg, ep, mo [Diagnosis, Diagnostic Imaging, Epidemiology, Mortality]
21	Hernia, Diaphragmatic/di, dg, ep, mo [Diagnosis, Diagnostic Imaging, Epidemiology, Mortality]
22	prenatal diagnosis/ or ultrasonography, prenatal/
23	Prognosis/
24	Risk Factors/
25	Pregnancy Outcome/
26	Treatment Outcome/

Tofte A, Aghajani F, Jawwad M, Flood A, D'Antonio F, Khalil A, et al. Prenatal predictors of survival in isolated congenital diaphragmatic hernia: a systematic review and meta-analysis. O&G Open 2024.

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27	Survival Rate/
28	Registries/
29	prevalence/
30	"Severity of Illness Index"/
31	Risk Assessment/
32	exp "Sensitivity and Specificity"/
33	exp "reproducibility of results"/
34	or/20-33
35	19 and 34
36	((right* adj3 (diaphragm* or CDH or Bochdalek)) or RCDH or R-CDH or lung volume\$1 or body volume\$1 or pulmonary volume\$1 or liver position\$1 or "liver/thoracic volume\$1" or liver herniat* or liver-herniat* or (stomach adj3 (hernia* or intrathoracic or position\$1 or grad*)) or lung-to-head ratio\$1 or lung-head ratio\$1 or (lung adj3 head adj3 ratio\$1) or liver-to-thoracic area ratio\$1 or (liver adj3 thoracic adj3 ratio\$1) or liver up or liver-up or liver down or liber-down or observed to expected or observed-to-expected or "orobserved/expected" or "o/e" or LHR or "O/E-LHR" or OELHR or PPV or PPLV or "%LH" or LiTR or FLV or MR-FLV or TFLV or FBV).ab,ti,kf.
37	3 and 36
38	35 or 37
39	animals/ not humans/
40	38 not 39
41	limit 40 to (case reports or classical article or comment or lectures or letter or news or newspaper article) [Limit not valid in Ovid MEDLINE(R),Ovid MEDLINE(R) Daily Update,Ovid MEDLINE(R) In-Process,Ovid MEDLINE(R) Publisher; records were retained]
42	40 not 41
43	remove duplicates from 42

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## Appendix 2. Survival plots.

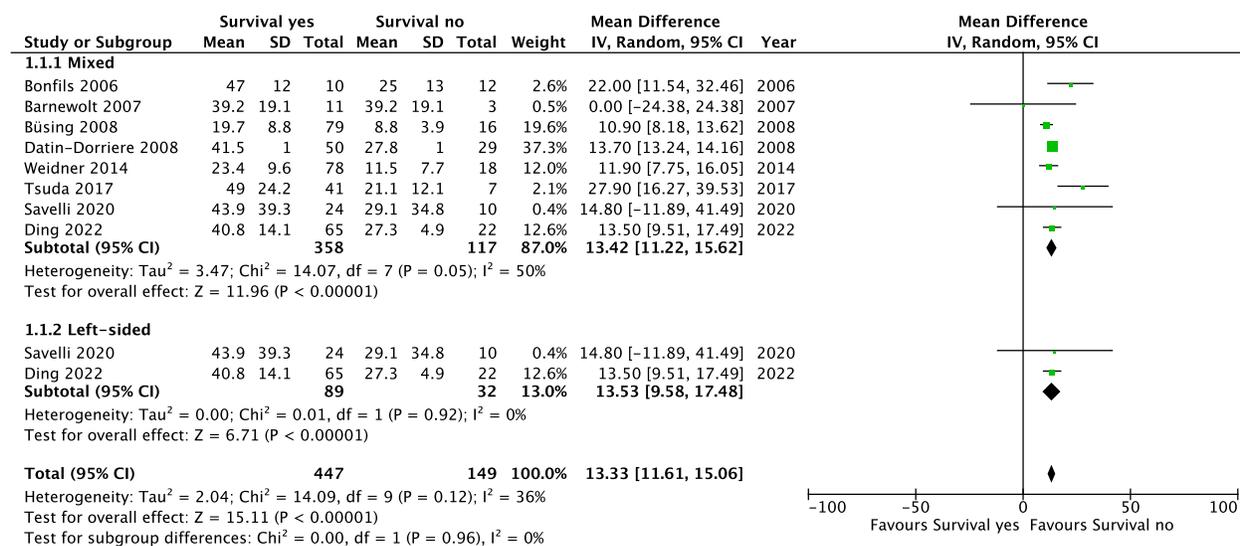


Figure 1. Forest plot comparing TFLV\_M in patients in survival and non survival group.

Tofte A, Aghajani F, Jawwad M, Flood A, D'Antonio F, Khalil A, et al. Prenatal predictors of survival in isolated congenital diaphragmatic hernia: a systematic review and meta-analysis. O&G Open 2024.

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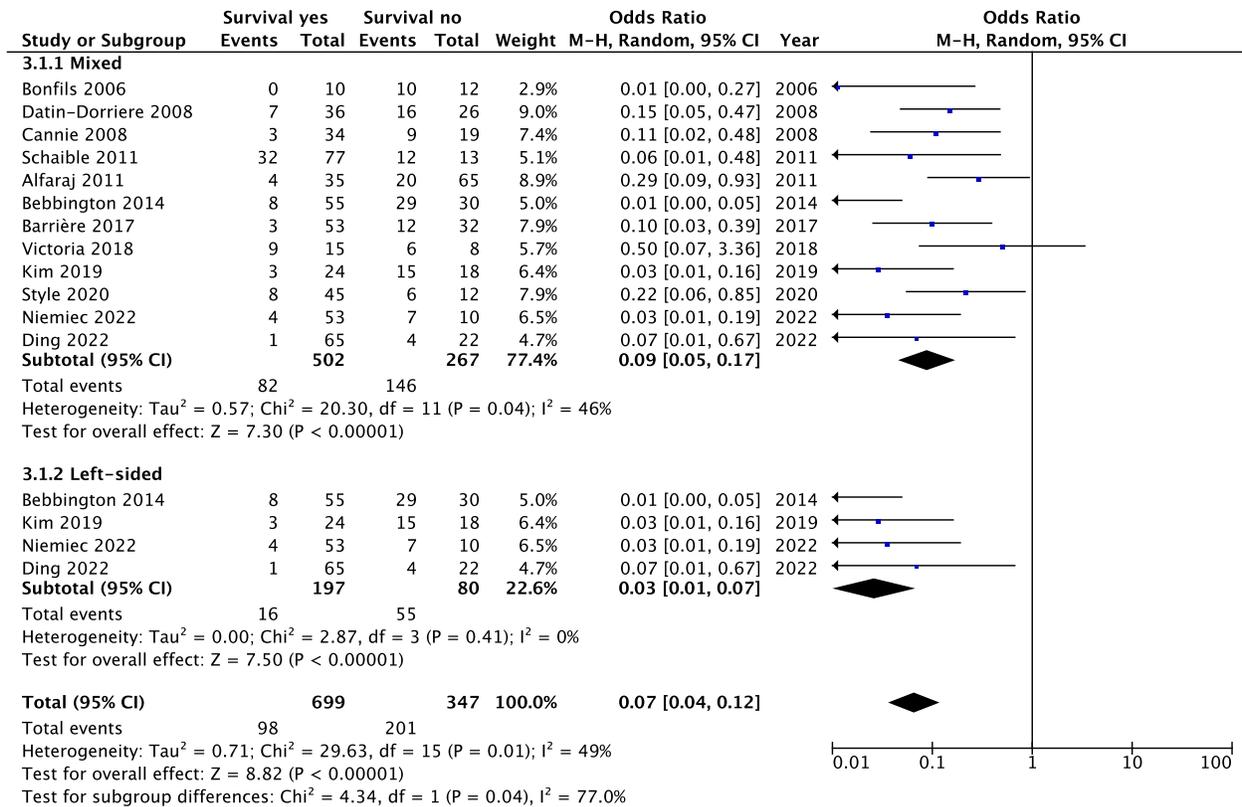


Figure 2. Forest plot comparing o/e TFLV<30% in patients in survival and non survival group

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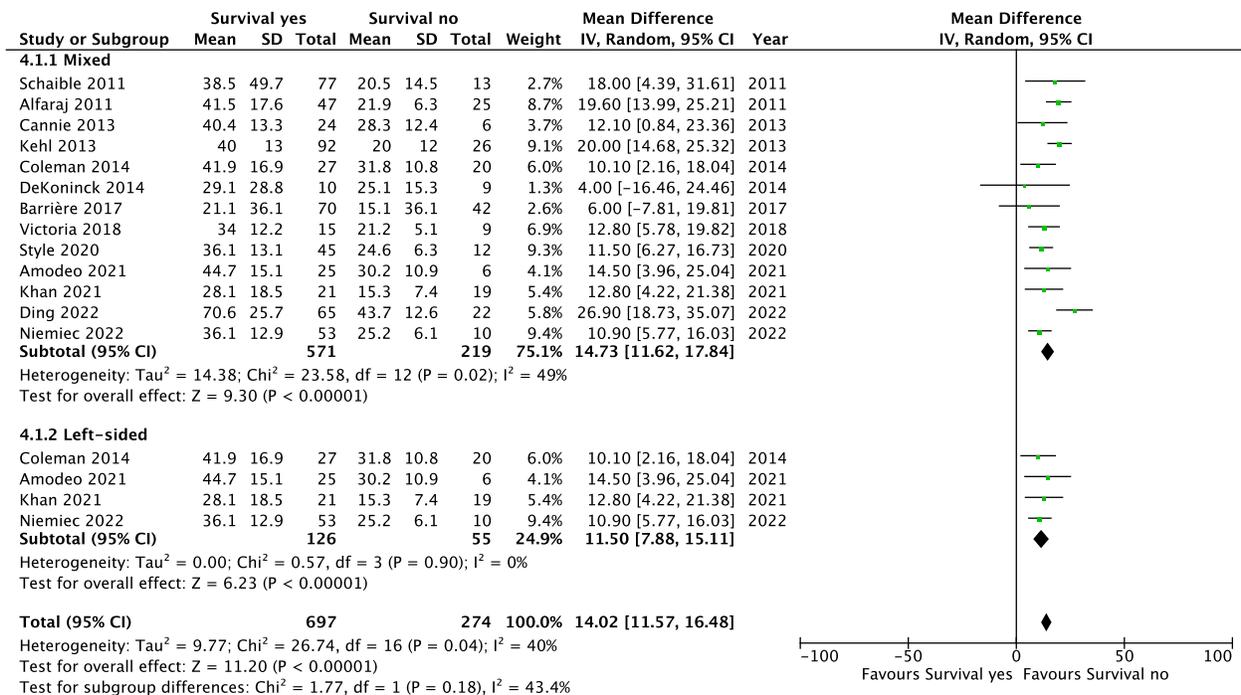


Figure 3. Forest plot comparing mean o/e TFLV in patients in survival and non survival group

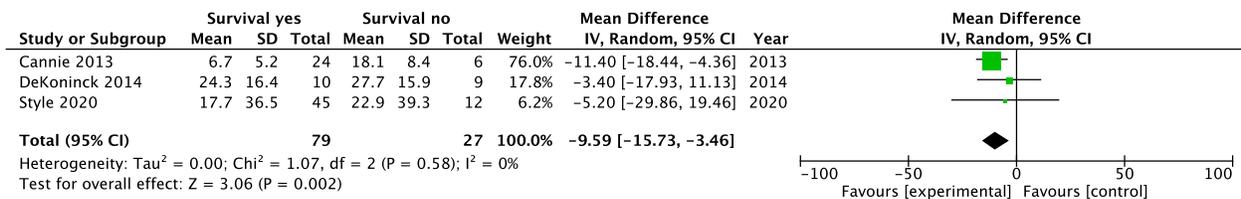


Figure 4. Forest plot comparing LiTR\_M in patients in survival and non survival group

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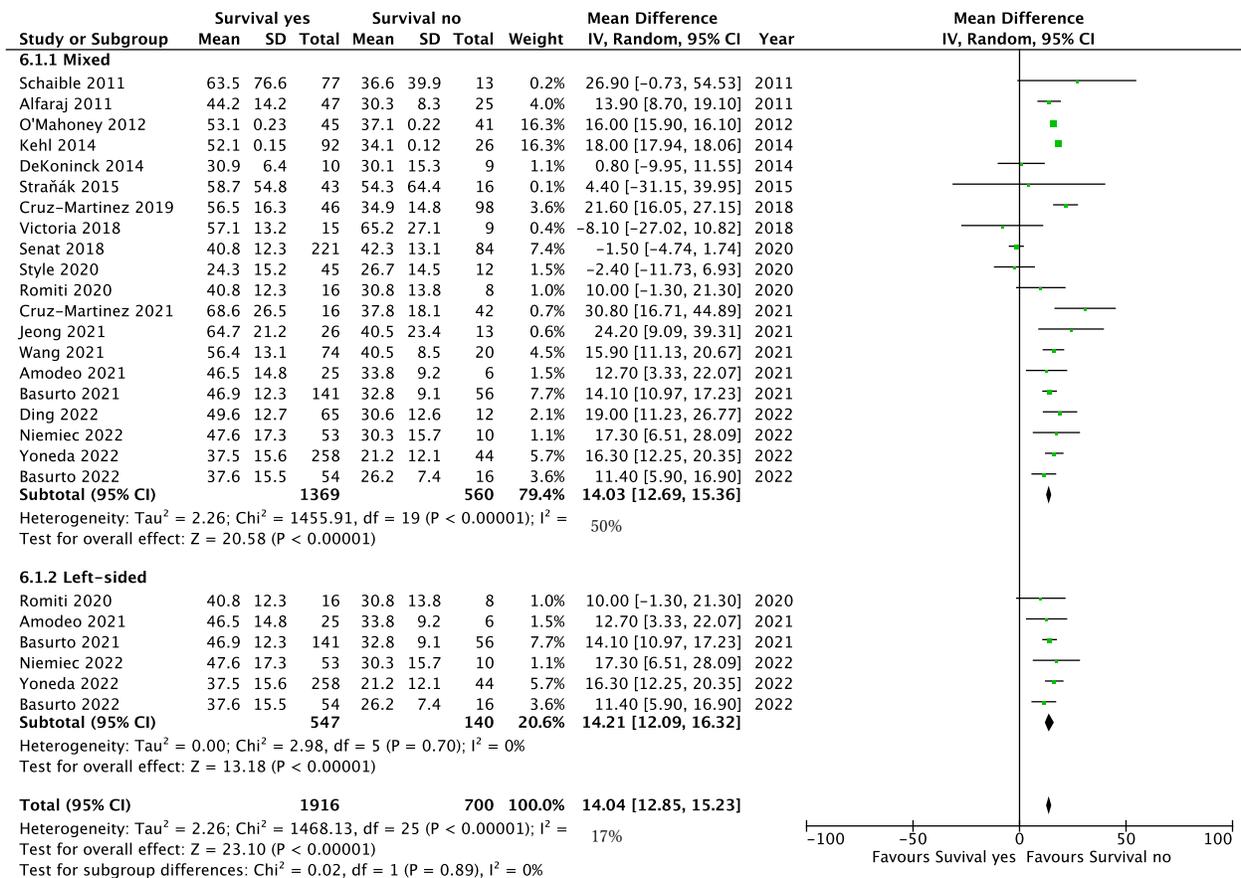


Figure 5. Forest plot comparing mean o/e LHR in patients in survival and non survival group

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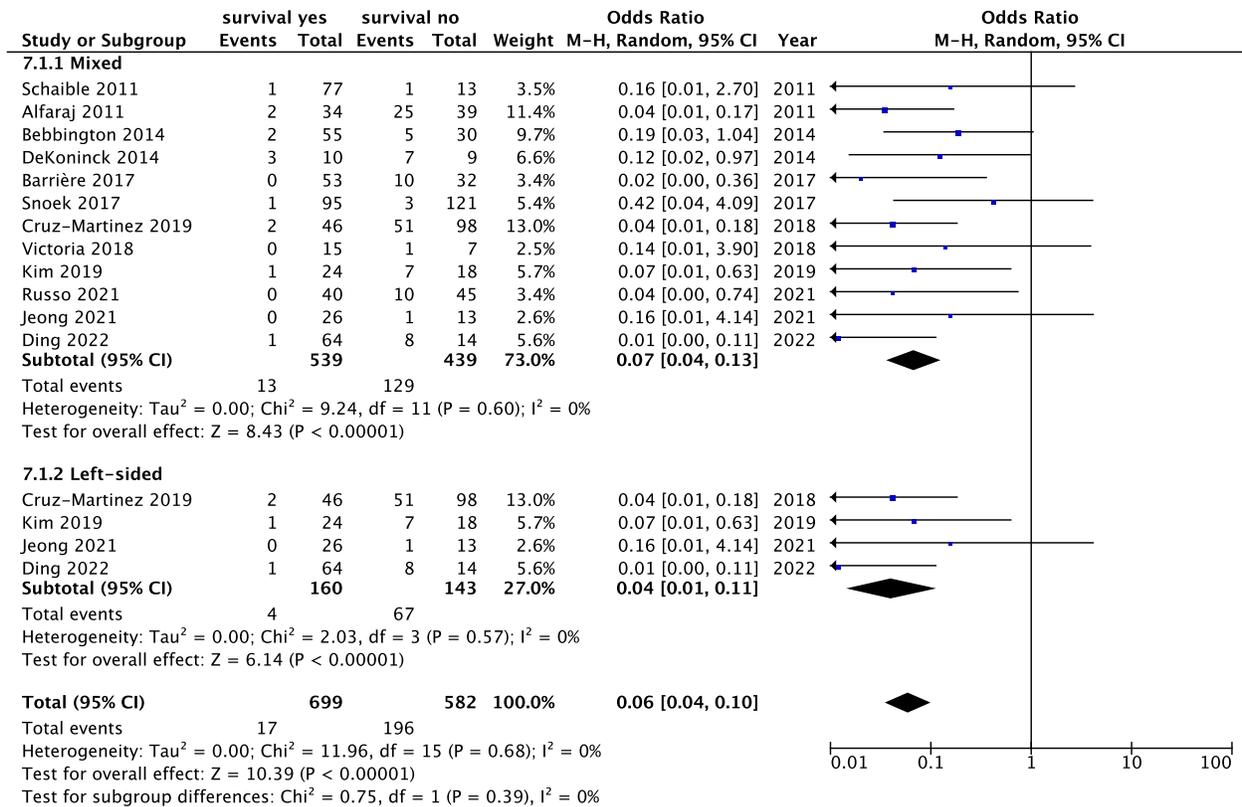


Figure 6. Forest plot comparing o/e LHR<25% in patients in survival and non survival group

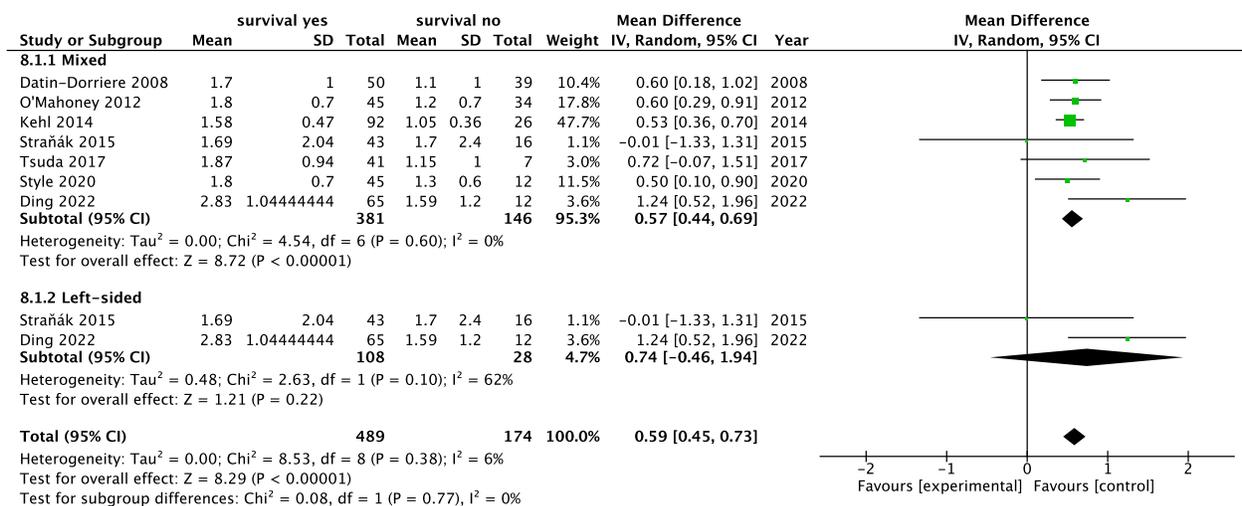


Figure 7. Forest plot comparing mean LHR in patients in survival and non survival group

Tofte A, Aghajani F, Jawwad M, Flood A, D'Antonio F, Khalil A, et al. Prenatal predictors of survival in isolated congenital diaphragmatic hernia: a systematic review and meta-analysis. O&G Open 2024.

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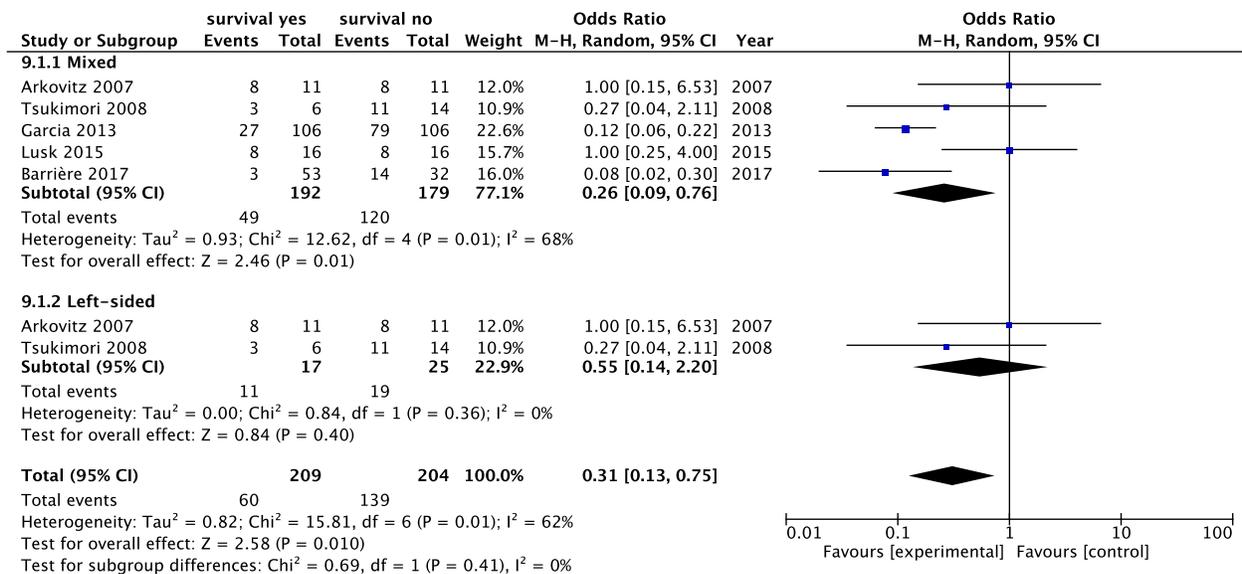


Figure 8. Forest plot comparing LHR<1 in patients in survival and non survival group

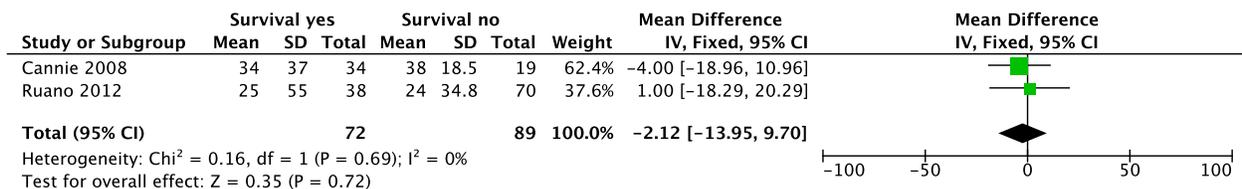


Figure 9. Forest plot comparing Percentage herniated liver in patients in survival and non survival group

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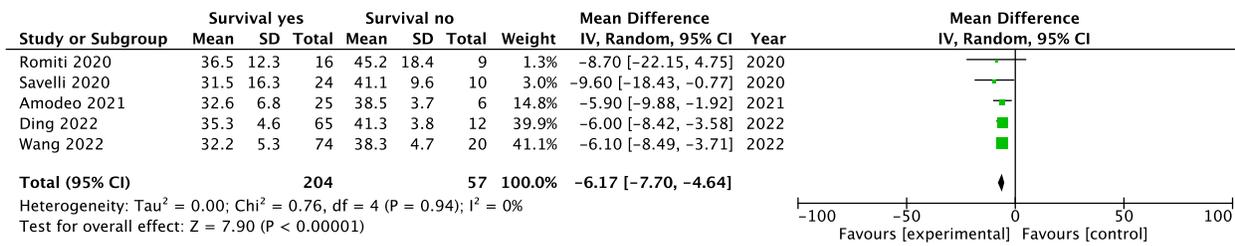


Figure 10. Forest plot comparing MSA in patients in survival and non survival group

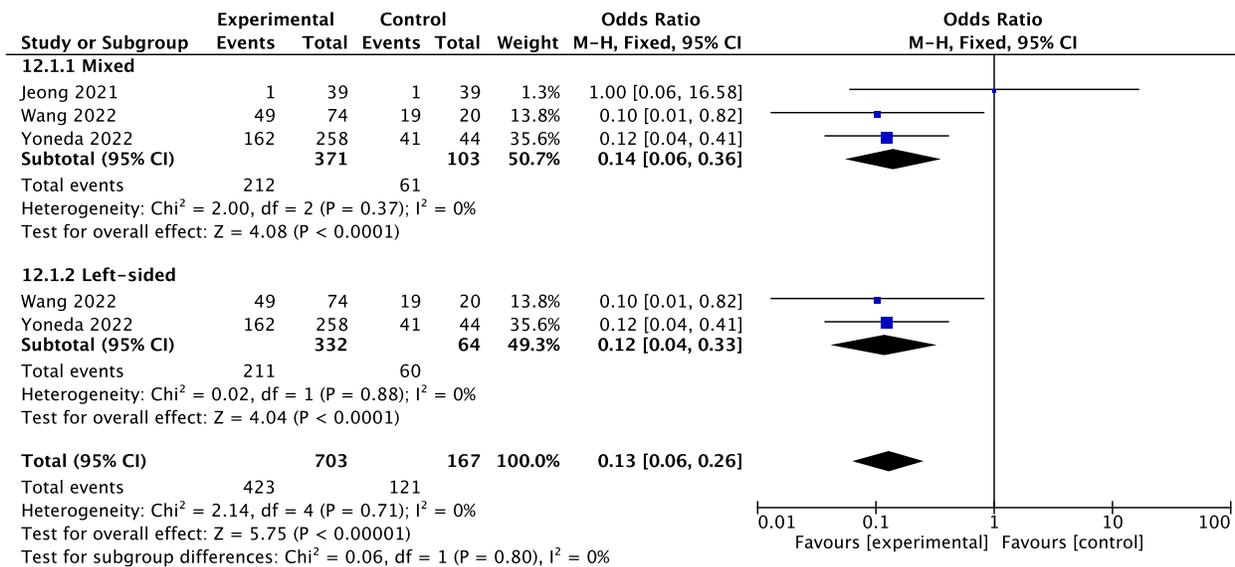


Figure 11. Forest plot comparing Stomach in mid chest in patients in survival and non survival group

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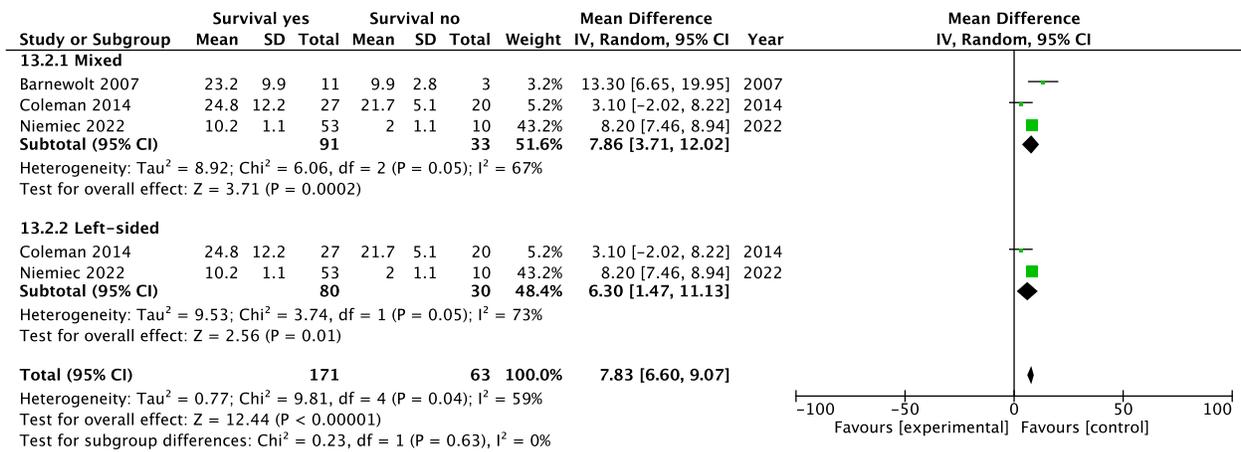


Figure 12. Forest plot comparing PPLV in patients in survival and non survival group

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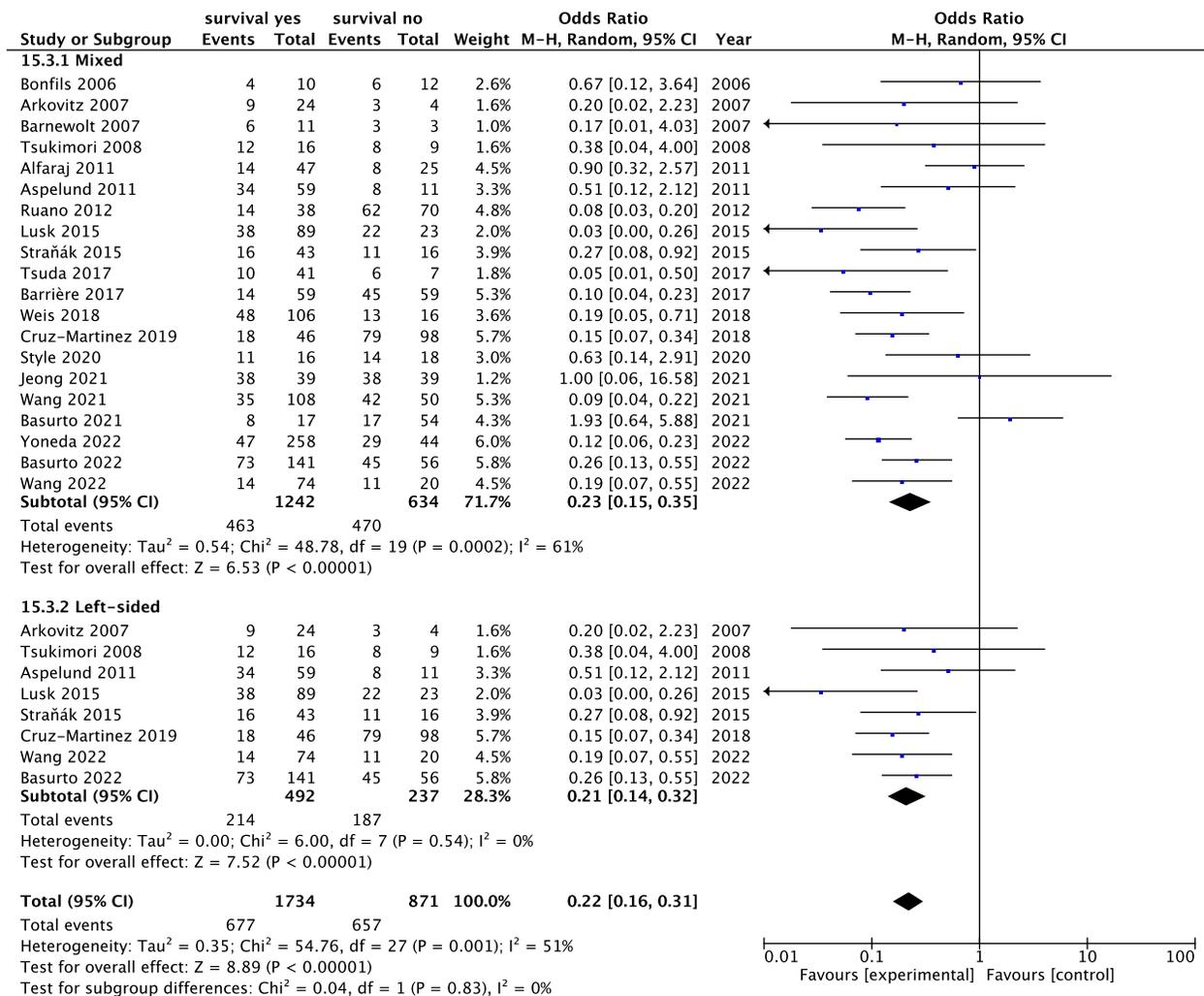


Figure 13. Forest plot comparing Liver up in patients in survival and non survival group

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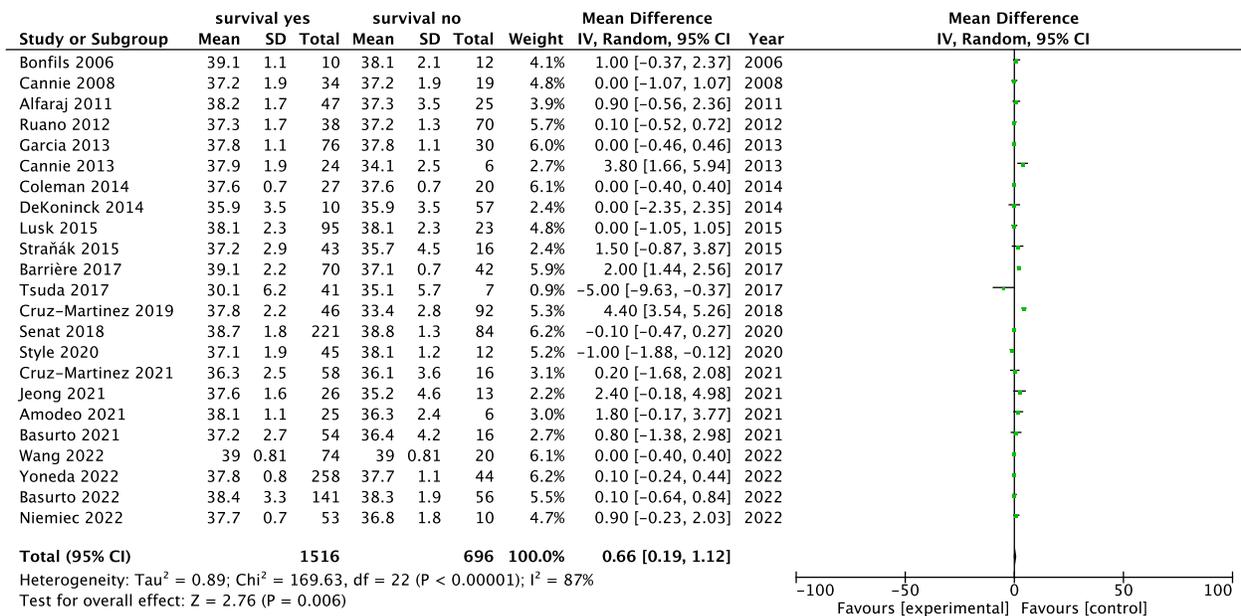
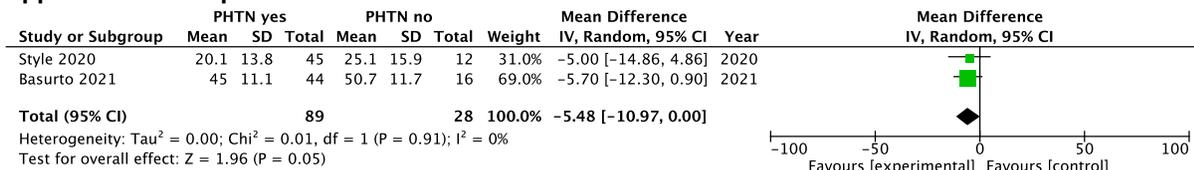


Figure 14. Forest plot comparing GA at delivery in patients in survival and non-survival group

### Appendix 3. PHTN plots.



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Figure 1. Forest plot comparing o/e LHR in patients in PHTN and no PHTN group

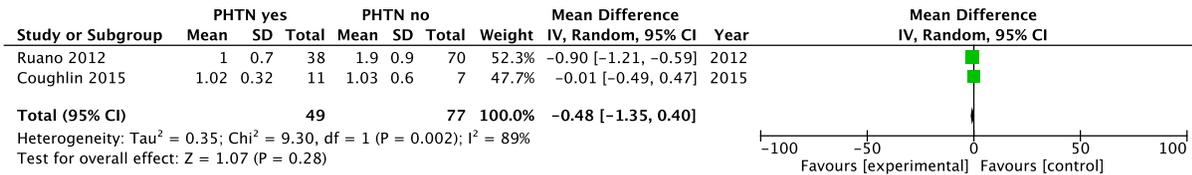


Figure 2. Forest plot comparing Mean LHR in patients in PHTN and no PHTN group

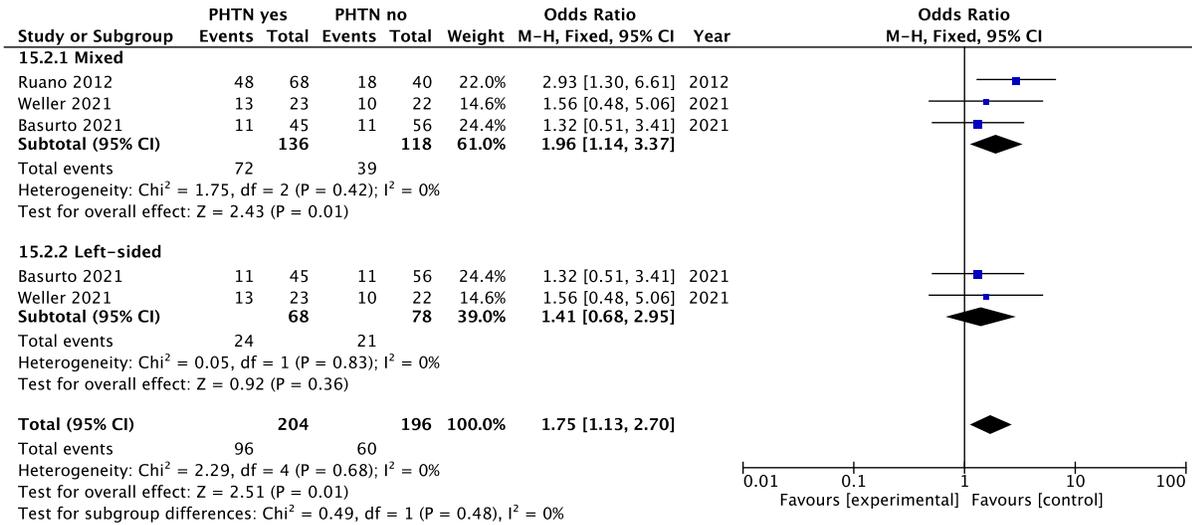


Figure 3. Forest plot comparing Liver up in patients in PHTN and no PHTN group

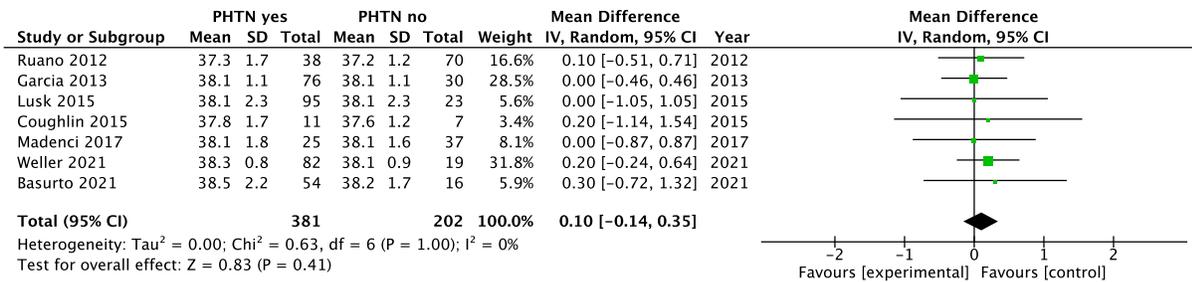


Figure 4. Forest plot comparing GA at delivery in patients in PHTN and no PHTN group

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### Appendix 4. ECMO plots.

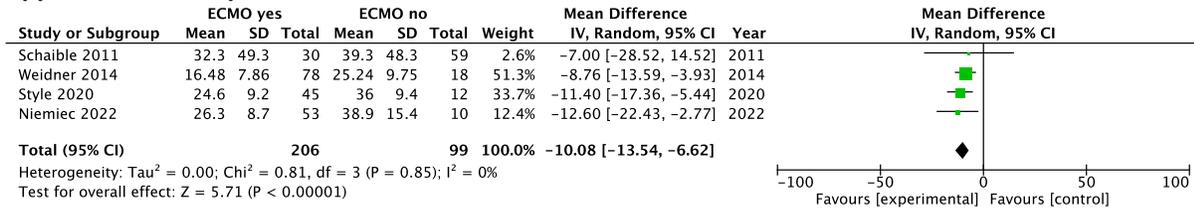


Figure 1. Forest plot comparing o/e TFLV in patients in ECMO and no ECMO group

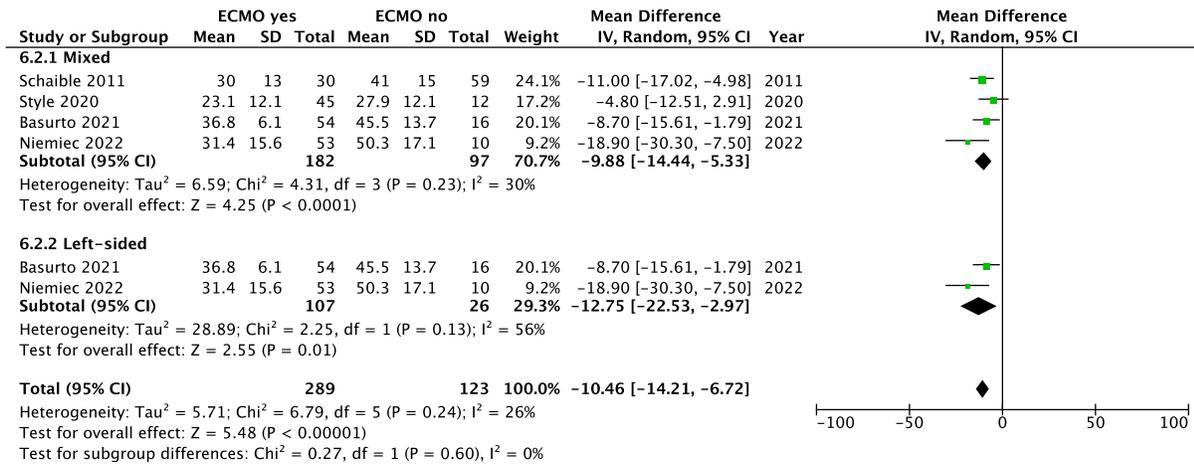


Figure 2. Forest plot comparing o/e LHR in patients in ECMO and no ECMO group

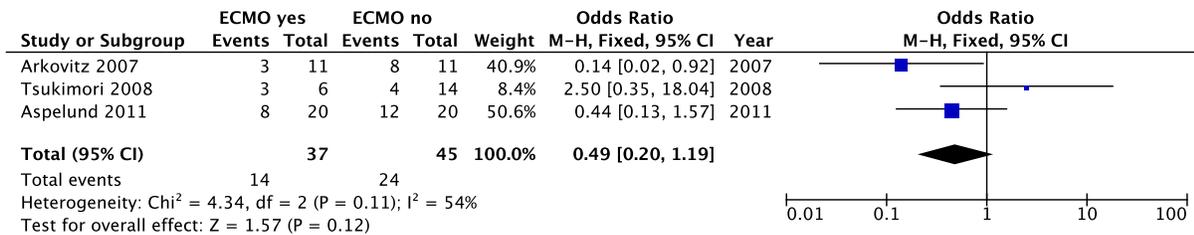


Figure 3. Forest plot comparing LHR<1 in patients in ECMO and no ECMO group

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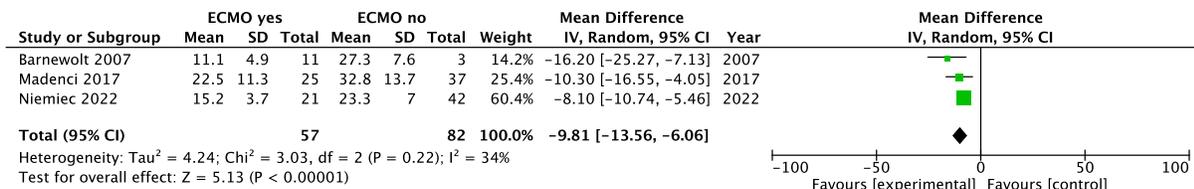


Figure 4. Forest plot comparing PPLV in patients in ECMO and no ECMO group

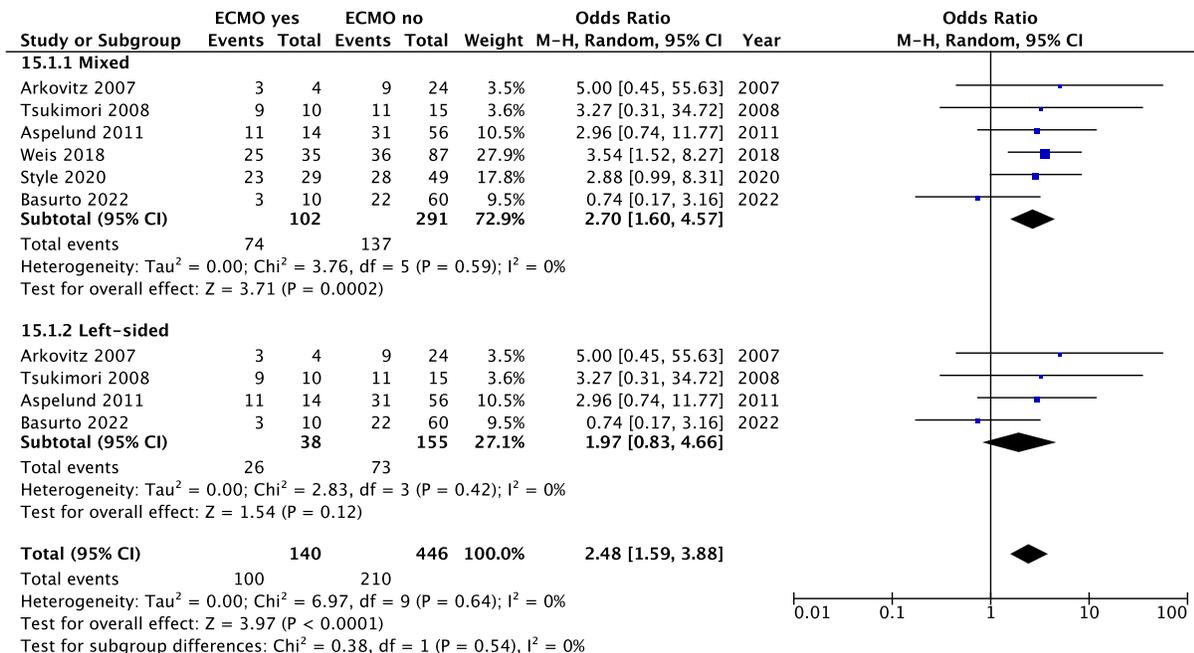


Figure 5. Forest plot comparing Liver up in patients in ECMO and no ECMO group

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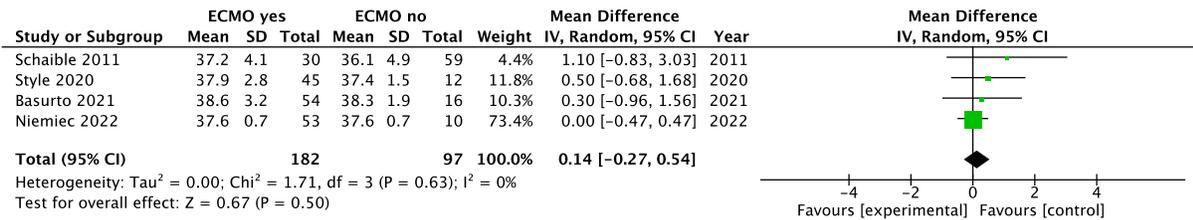


Figure 6. Forest plot comparing GA at delivery in patients in ECMO and no ECMO group

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**Appendix 5. Newcastle-Ottawa Scale Congenital Diaphragmatic Hernia Predictors: Newcastle-Ottawa Risk of Bias Tool**

Author, publication year	Representativeness of exposed cohort	Selection of non-exposed cohort	a	Outcome of interest not present at beginning of study	Comparability	Assessment of outcome	Enough follow-up	Adequate follow-up	Total Score
Bonfils, 2006	*	*		*	**		*		6
Arkovitz, 2007	*	*		*	*		*	*	6
Barnewolt, 2007	*	*	*	*	*	*	*		7
Büsing, 2008	*	*	*	*	**	*	*	*	9
Cannie 2008	*	*	*	*	*	*	*	*	8
Datin-Dorriere, 2008	*	*	*	*	**	*	*	*	9
Tsukimori, 2008	*	*	*	*	*		*	*	7
Alfaraj, 2011	*	*	*	*	*	*	*	*	8
Aspelund, 2011	*	*	*	*	**	*	*	*	9
Schaible, 2011	*	*	*	*	**	*	*	*	9
Ruano, 2012	*	*	*	*	**	*	*	*	9
O'Mahoney, 2012	*	*	*	*	*		*	*	7
Cannie, 2013	*	*	*	*	**	*	*	*	9
Garcia, 2013	*	*	*	*	**	*	*	*	9
Kehl, 2013	*	*	*	*	**	*	*	*	9
Bebbington, 2014	*	*	*	*	**	*	*	*	9
Coleman, 2014	*	*	*	*	**	*	*	*	9
DeKoninck, 2014	*	*	*	*	*	*	*	*	8
Kehl, 2014	*	*	*	*	**	*	*	*	9
Weidner, 2014	*	*	*	*	**	*	*	*	9
Coughlin, 2015	*	*	*	*	*	*	*	*	8
Lusk, 2015	*	*	*	*	**	*	*	*	9
Stranák, 2015	*	*	*	*	**	*	*	*	9
Barrière, 2017	*	*	*	*	**	*	*	*	9
Madenci, 2017	*	*	*	*		*	*	*	7
Snoek, 2017	*	*	*	*	**	*	*	*	9
Tsuda, 2017	*	*	*	*	**	*	*	*	9
Senat, 2018	*	*	*	*	**	*	*	*	9
Victoria, 2018	*	*	*	*	*	*	*	*	8
Cruz-Martinez, 2019	*	*	*	*	**	*	*	*	9
Weis, 2018	*	*	*	*	*	*	*	*	8
Kim, 2019	*	*	*	*	**	*	*	*	9

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Romiti, 2020	*	*	*	*	*	*	*	*	8
Savelli, 2020	*	*	*	*	**	*	*	*	9
Style, 2020	*	*	*	*	**	*	*	*	9
Amodeo, 2021	*	*	*	*	*	*	*	*	8
Basurto, 2021	*	*	*	*	**	*	*	*	9
Cruz-Martinez, 2021	*	*	*	*	*	*	*	*	8
Jeong, 2021	*	*	*	*	**	*	*	*	9
Khan, 2021	*	*	*	*	**		*	*	8
Russo, 2021	*	*	*	*	*	*	*	*	8
Wang, 2021	*	*	*	*	**	*	*	*	9
Weller, 2021	*	*	*	*	**	*	*	*	9
Basurto, 2022	*	*	*	*	**	*	*	*	9
Ding, 2022	*	*	*	*	**	*	*	*	9
Niemiec, 2022	*	*	*	*	*	*	*	*	8
Wang, 2022	*	*	*	*	**	*	*	*	9
Yoneda, 2022	*	*	*	*	**		*	*	8

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