1. Input data

```
> library("readxl")
> data2 <- read_excel("D:/Local Disk/PhD1/articles/meta/2/archive(1)/2-4.xlsx")
```

2. Creating network

```
> args(netmeta)
function (TE, seTE, treat1, treat2, studlab, data = NULL, subset = NULL,
    sm, level = gs("level"), level.ma = gs("level.ma"),
    fixed = gs("fixed"), random = gs("random") |
        !is.null(tau.preset), prediction = FALSE, level.predict = gs("level.predict"),
    reference.group, baseline.reference = TRUE, small.values = "good",
    all.treatments = NULL, seq = NULL, method.tau = "DL",
    tau.preset = NULL, tol.multiarm = 0.001, tol.multiarm.se = NULL,
    details.chkmultiarm = FALSE, sep.trts = ":", nchar.trts = 666,
    nchar.studlab = 666, n1 = NULL, n2 = NULL, event1 = NULL,
    event2 = NULL, incr = NULL, sd1 = NULL, sd2 = NULL, time1 = NULL,
    time2 = NULL, backtransf = gs("backtransf"), title = "",
    keepdata = gs("keepdata"), control = NULL, warn = TRUE,
    warn.deprecated = gs("warn.deprecated"), nchar = nchar.trts,
    ...)
NULL
> mn1 <- netmeta(TE, seTE, treat1, treat2, studlab,data=data2, sm="MD",  details.chkmultiarm = TRUE)
```

Output of step 2:

```
Number of studies: k = 11
Number of pairwise comparisons: m = 21
Number of treatments: n = 15
Number of designs: d = 9

Fixed effects model

Treatment estimate (sm = 'MD', comparison: other treatments vs 'Liraglutide'):
                                          MD             95%-CI     z
Liraglutide                                .                  .     .
Liraglutide 1.8                       1.8552 [-2.0121;  5.7225]  0.94
Liraglutide 3.0                       0.3552 [-3.0428;  3.7532]  0.20
Lorcaserin                            2.4553 [ 1.4119;  3.4986]  4.61
Lorcaserin 10 mg                      8.3552 [ 3.9760; 12.7344]  3.74
Lorcaserin BID                        1.9552 [ 0.5505;  3.3599]  2.73
Lorcaserin QD                         2.8552 [ 1.2685;  4.4419]  3.53
Naltrexone-Bupropion                  0.0552 [-1.7633;  1.8737]  0.06
Naltrexone plus bupropion 16          0.7552 [-1.0473;  2.5577]  0.82
Naltrexone plus bupropion 32         -0.5448 [-2.3633;  1.2737] -0.59
Orlistat QD                           9.0552 [ 5.6385; 12.4719]  5.19
Phentermine 15·0 mg + topiramate 92·0 mg -3.7448 [-5.3914; -2.0982] -4.46
Phentermine 7·5 mg + topiramate 46·0 mg  -2.0448 [-4.0773; -0.0123] -1.97
Placebo                               5.3552 [ 4.3121;  6.3983] 10.06
Pramlintide                          -1.1448 [-8.1804;  5.8908] -0.32
```

	p-value
Liraglutide	.
Liraglutide 1.8	0.3471
Liraglutide 3.0	0.8377
Lorcaserin	< 0.0001
Lorcaserin 10 mg	0.0002
Lorcaserin BID	0.0064
Lorcaserin QD	0.0004
Naltrexone-Bupropion	0.9526
Naltrexone plus bupropion 16	0.4115
Naltrexone plus bupropion 32	0.5571
Orlistat QD	< 0.0001
Phentermine 15·0 mg + topiramate 92·0 mg	< 0.0001
Phentermine 7·5 mg + topiramate 46·0 mg	0.0486
Placebo	< 0.0001
Pramlintide	0.7498

Random effects model

Treatment estimate (sm = 'MD', comparison: other treatments vs 'Liraglutide'):

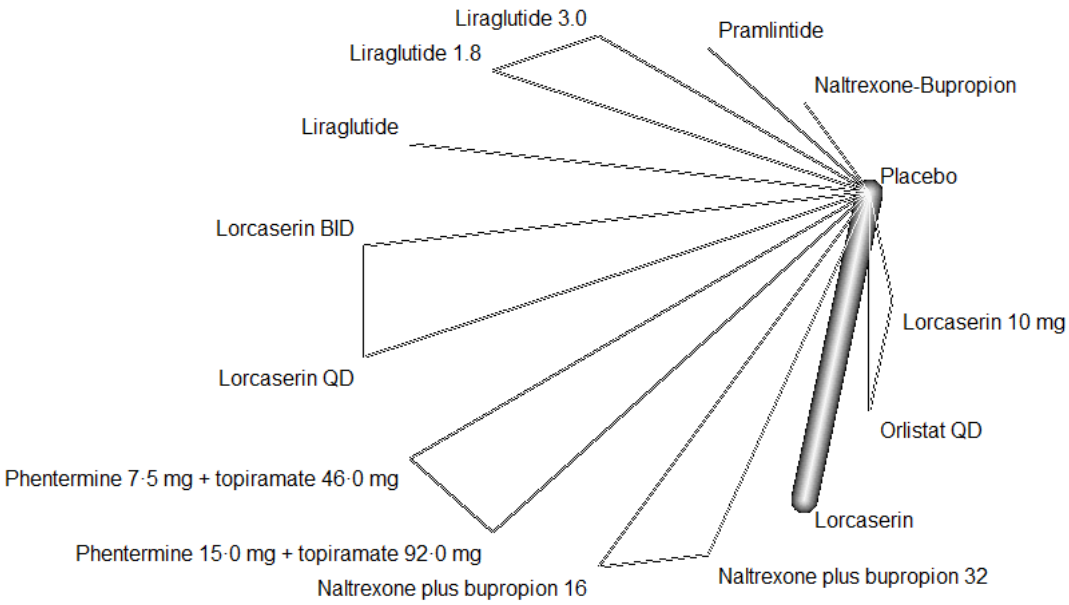
	MD	95%-CI	z
Liraglutide	.	.	.
Liraglutide 1.8	1.8552	[-2.0121; 5.7225]	0.94
Liraglutide 3.0	0.3552	[-3.0428; 3.7532]	0.20
Lorcaserin	2.4553	[1.4119; 3.4986]	4.61
Lorcaserin 10 mg	8.3552	[3.9760; 12.7344]	3.74
Lorcaserin BID	1.9552	[0.5505; 3.3599]	2.73
Lorcaserin QD	2.8552	[1.2685; 4.4419]	3.53
Naltrexone-Bupropion	0.0552	[-1.7633; 1.8737]	0.06
Naltrexone plus bupropion 16	0.7552	[-1.0473; 2.5577]	0.82
Naltrexone plus bupropion 32	-0.5448	[-2.3633; 1.2737]	-0.59
Orlistat QD	9.0552	[5.6385; 12.4719]	5.19
Phentermine 15·0 mg + topiramate 92·0 mg	-3.7448	[-5.3914; -2.0982]	-4.46
Phentermine 7·5 mg + topiramate 46·0 mg	-2.0448	[-4.0773; -0.0123]	-1.97
Placebo	5.3552	[4.3121; 6.3983]	10.06
Pramlintide	-1.1448	[-8.1804; 5.8908]	-0.32

```
                                          p-value
Liraglutide                                     .
Liraglutide 1.8                            0.3471
Liraglutide 3.0                            0.8377
Lorcaserin                                < 0.0001
Lorcaserin 10 mg                           0.0002
Lorcaserin BID                             0.0064
Lorcaserin QD                              0.0004
Naltrexone-Bupropion                       0.9526
Naltrexone plus bupropion 16               0.4115
Naltrexone plus bupropion 32               0.5571
Orlistat QD                               < 0.0001
Phentermine 15·0 mg + topiramate 92·0 mg  < 0.0001
Phentermine 7·5 mg + topiramate 46·0 mg    0.0486
Placebo                                   < 0.0001
Pramlintide                                0.7498

Quantifying heterogeneity / inconsistency:
tau^2 = 0; tau = 0; I^2 = 0% [0.0%; 89.6%]

Tests of heterogeneity (within designs) and inconsistency (between designs):
                    Q d.f. p-value
Total            1.42    2  0.4926
Within designs   1.42    2  0.4926
Between designs  0.00    0      --
```

3. Net graph

netgraph(mn1, seq=c("Placebo", "Naltrexone-Bupropion", "Pramlintide", "Liraglutide 3.0", "Liraglutide 1.8", "Liraglutide", "Lorcaserin BID", "Lorcaserin QD", "Phentermine 7·5 mg + topiramate 46·0 mg", "Phentermine 15·0 mg + topiramate 92·0 mg", "Naltrexone plus bupropion 16", "Naltrexone plus bupropion 32", "Lorcaserin", "Orlistat QD", "Lorcaserin 10 mg"))

output of step 3



4. Forest plot

```
> forest(mn1,
+        reference.group = "Placebo",
+        sortvar = TE,
+        xlim=c(-15,15),
+        col.square = "blue")
> 
```

Output of step 4