

Appendix (STATA commands)

```
//load the Ondansetron data.dta
//These are the codes:
  CodeDefinition
//Ondan      Ondansetron
//HypoIncidence of hypotention
//Brady      Incidence of bradycardia
//Phynel     Phynelephrine
//ABGAR      ABGAR score at 5 minutes (min 3 and max 10)
//UvPhUmbalical vein pH
//UaPhUmbalical artery pH
//PCO2       Umbalical partial CO2 pressure
//No 0
//Yes 1
//Subgroups: 0 = general surgery, 1 = cesarean delivery
//nc = placebo_total
//rc = placebo_hypo or brady
//nt = ondan_total
//rt = ondan_hypo or brady

// the meta-analysis command in stata (metan) requires the number of no-events in each arm

gen placebo_nohypo= Placebo_Total- Placebo_Hypo
gen Ondan_nohypo= Ondan_Total- Ondan_Hypo

// run a random-effect analysis

metan Ondan_Hypo Ondan_nohypo Placebo_Hypo placebo_nohypo, randomi lcols( Authors)

// run a subgroup analysis
metan Ondan_Hypo Ondan_nohypo Placebo_Hypo placebo_nohypo, randomi lcols( Authors)
by(Subgroup)

// in order to use the commands for creating a funnel plot and apply Egger's test, we need to
compute the effect size and its standard error from each study/*

gen logRR=log(_ES)

rename _selogES selogRR

// command used to draw a funnel plot with regression line
metafunnel logRR selogRR,egger
```

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// command used to account for small-study effects using Egger's method
metabias logRR selogRR, egger graph

// command used to draw a contour-enhanced funnel plot
confunnel logRR selogRR

// commands used to apply a random-effects meta-regression with dose as covariate. We sort
studies by dose so that we will take a better-looking graph /*

sort Dose

metareg logRR Dose, wsse(selogRR) graph

// commands used to draw a graph with the meta-regression line and confidence bounds

predict fit
predict stdp, stdp
gen t=invttail(N,0.975)
gen confu=fit+t*stdp
gen confl=fit-t*stdp

// N is the number of studies minus one

twoway (line fit Dose) (line confl Dose) (line confu Dose) || scatter logRR Dose
[w=1/selogRR^2], msymbol(oh)||

// to apply all the aforementioned commands in the subgroup of cesarean delivery studies, we
add 'if Subgroup==1' before typing the options of the command. For example, to draw a funnel
plot
metafunnel logRR selogRR if Subgroup==1, egger

// Bradycardia analysis

gen placebo_nonBrady= Placebo_Total- Placebo_Brady
gen Ondan_nonBrady= Ondan_Total- Ondan_Brady
// run a random-effects meta-analysis
metan Ondan_Brady Ondan_nonBrady Placebo_Brady placebo_nonBrady, randomi lcols(
Authors)
// run a subgroup analysis
metan Ondan_Brady Ondan_nonBrady Placebo_Brady placebo_nonBrady, randomi lcols(
Authors) by(Subgroup)

```

```
gen logRR=log(_ES)

// for simplicity rename the standard error
rename _selogES selogRR

// draw a funnel plot
metafunnel logRR selogRR,egger
// account for small-study effects using Egger's method
metabias logRR selogRR, egger graph
// draw a contour-enhanced funnel plot
confunnel logRR selogRR
```

The selection model was estimated in OpenBUGS using Markov Chain Monte Carlo (MCMC) simulations. The code that was used is available in <http://mtm.uoi.gr/index.php/material-from-publications-software-and-protocols>. Last accessed on 01/08/2016.