

Supplementary Table and Figures to:

Evaluation of the retinopathy of prematurity activity scale (ROP-ActS) in a randomized controlled trial aiming for prevention of severe ROP - A sub-study of the Mega Donna Mega trial

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Supplementary Table 1. Retinopathy of prematurity activity scale (ROP-ActS), original and modified.

Category ^a	Original ROP-ActS ^a			Modified ROP-ActS ^b	Severe ROP	Zone	Stage	Plus disease
	Score	N infants with max value		Score				
		AA:DHA (n=84)	Control (n=93)					
Mild	0	35	37	0	No	None	None	
Mild	1	5	2	1	No	III	1	
Mild	2	5	3	2	No	III	2	
Mild	3	11	7	5	No	II	1	
Mild	4	0	0	4	No	III	1	+
Mild	5	1	2	3	Yes	III	3	
Mild	6	0	0	6	No	III	2	+
Mild	7	10	10	7	No	II	2	
Moderate	8	4	11	8	Yes	II	3	
Moderate	9	0	1	9	Yes	III	3	+
Moderate	10	1	0	10	No	I	1	
Moderate	11	0	0	11	No	II	1	+
Moderate	12	0	0	12	No	I	2	
Severe ^c	13	0	1	13	Yes	II	2	+
Severe ^c	14	12	18	14	Yes	II	3	+
Severe ^c	15	0	0	15	Yes	I	1	+
Severe ^c	16	0	0	16	Yes	I	3	
Severe ^c	17	0	0	17	Yes	I	2	+
Severe ^c	18	0	1	18	Yes	I	3	+
Severe	19	0	0	19		Any zone	AP-ROP	
Severe	20	0	0	20		Any zone	4a	
Severe	21	0	0	21		Any zone	4b	
Severe	22	0	0	22		Any zone	5	

AA = arachidonic acid; DHA = docosahexaenoic acid; ROP = retinopathy of prematurity; ROP-ActS = retinopathy of prematurity activity scale; AP-ROP = aggressive posterior retinopathy of prematurity

^a Original ROP activity scale (ROP-ActS) and categories. (Smith et al 2019)

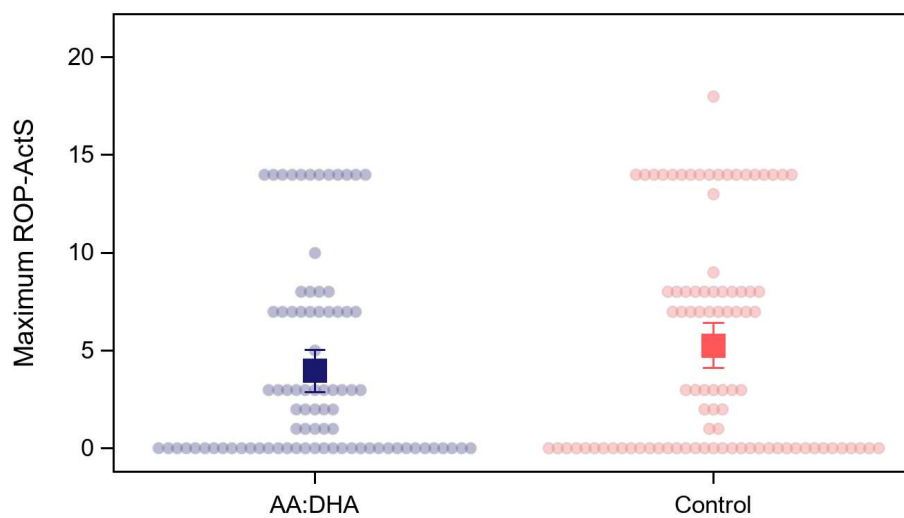
^b Modified ROP activity scale (mROP-ActS) proposed based on the risk evaluation regarding studied short-term outcome, the need for ROP treatment. (Pivodic et al 2020)

^c Requires ROP treatment according to the Early Treatment of ROP criteria. (ETROP 2003)

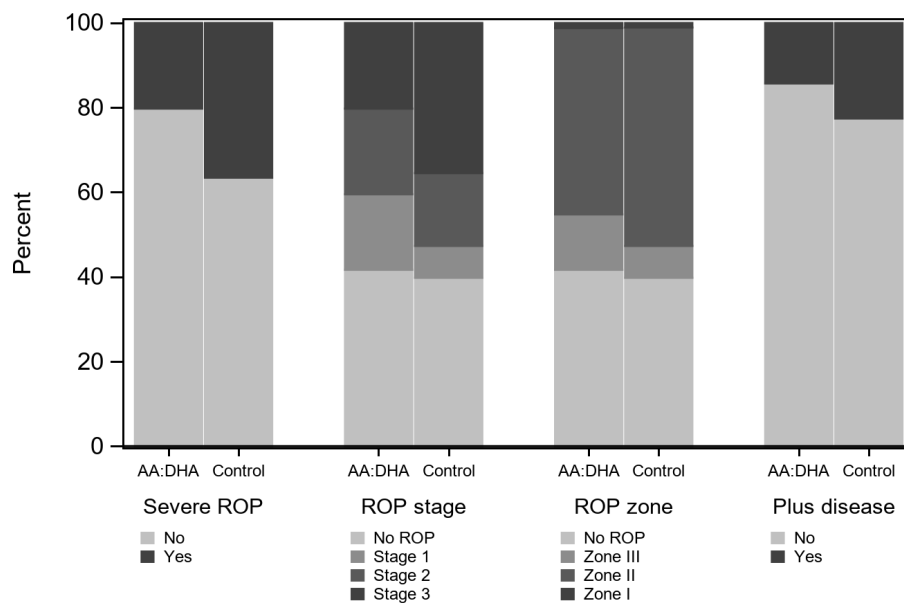
Supplementary Figure 1. Retinopathy of prematurity severity variables in the AA:DHA and the control group (Full analysis set). A) Maximum ROP-ActS, B) Severe ROP (stage 3 or treatment), maximum ROP stage, most central ROP zone and plus disease

AA = arachidonic acid; DHA = docosahexaenoic acid; ROP = retinopathy of prematurity; ROP-ActS = retinopathy of prematurity activity scale

A)

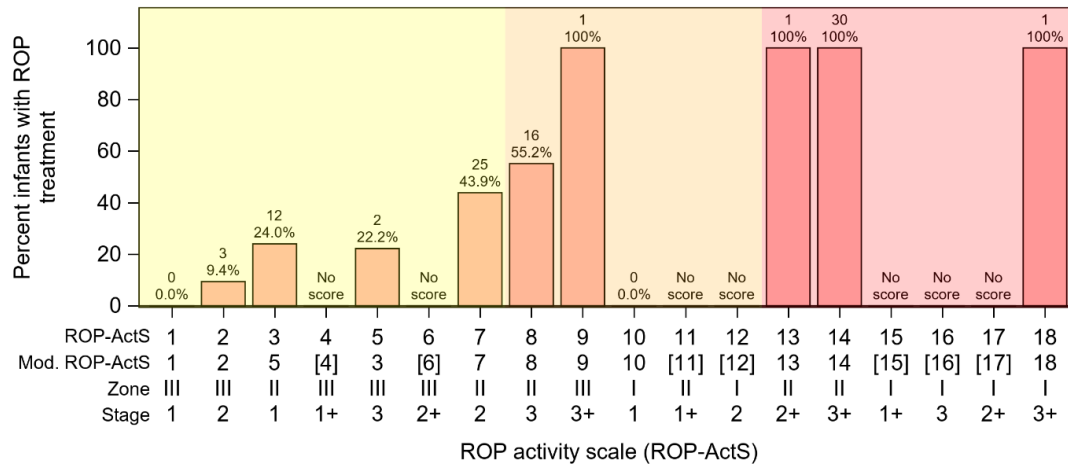


B)



Supplementary Figure 2. Incidence of ROP treatment among infants with experienced ROP-ActS score any time during the study (Full analysis set)

ROP = retinopathy of prematurity; ROP-ActS = retinopathy of prematurity activity scale



Supplementary Figure 3. Longitudinal ROP-ActS values by treatment groups on imputed data set carrying forward no ROP for infants with early stop of ROP screening for A) all infants, B) boys, C) girls, D) gestational age 22-24 weeks, E) gestational age 25-26 weeks, F) gestational age 27 weeks.

The estimated mean values are showing expected mean for the whole prematurely born population in this study, imputing *No ROP* every second week for those infants that stop their screening before PNA week 30 or PMA week 50 (whichever occurs first). Not all infants have regularly reported values over time, since the ROP screening examinations are individually defined for all infants.

AA = arachidonic acid; DHA = docosahexaenoic acid; ROP = retinopathy of prematurity; ROP-ActS = retinopathy of prematurity activity scale; GA = gestational age; CI = confidence interval

