# **Appendix 1: Search Strategies**

A. CINAHL

S4 S1 AND S2 AND S3

S3 ( (MH "Randomized Controlled Trials") OR (MH "Crossover Design") OR (MH "Random Assignment") OR (MH "Triple-Blind Studies") OR (MH "Double-Blind Studies") OR (MH "Single-Blind Studies") ) OR TI ( Random\* OR Crossover\* OR "Cross Over" OR ((Double OR Single OR Triple OR Treble) N1 (Mask\* OR Blind\*)) OR Trial\* ) OR AB ( Random\* OR Crossover OR "Cross Over" OR Factorial\* OR Placebo\* OR Assign\* OR Allocat\* OR Volunteer\* OR Groups OR ((Double OR Single OR Triple OR Treble) N1 (Mask\* OR Blind\*)) OR Trial\*) )

S2 (MH "Fatty Acids, Omega-3+") OR TI ( "Bilantin Omega" OR "Conchol 36" OR "Eicosa E" OR "n 3 Fatty Acid" OR "n 3 Fatty Acids" OR "n 3 Oil" OR "n 3 Oils" OR "n 3 Polyunsaturated Fatty Acid" OR "n 3 Polyunsaturated Fatty Acids" OR "n3 Fatty Acid" OR "n3 Fatty Acids" OR "n3 Oil" OR "n3 Oils" OR "n3 Polyunsaturated Fatty Acid" OR "n3 Polyunsaturated Fatty Acids" OR "Omega Forte" OR Clupanodonic OR Docosahexaenoate\* OR Docosahexaenoic OR Docosahexenoic OR Docosapentaenoic OR Eicosapen OR Eicosapentaenoic OR Eicosapentanoic OR Eicosatetraenoic OR Eicosatrienoic OR Epaisdin OR Epanova OR Heneicosapentaenoic OR Hexadecatrienoic OR Icosapentaenoic OR Linolenate\* OR Linolenic OR Moroctic OR Neuroprostan\* OR "Omega 3" OR Omega3 OR PUFA OR PUFAs OR Sakana OR Stearidonic OR Tetracosahexaenoic OR Tetracosapentaenoic OR Timnodonic ) OR AB ( "Bilantin Omega" OR "Conchol 36" OR "Eicosa E" OR "n 3 Fatty Acid" OR "n 3 Fatty Acids" OR "n 3 Oil" OR "n 3 Oils" OR "n 3 Polyunsaturated Fatty Acid" OR "n 3 Polyunsaturated Fatty Acids" OR "n3 Fatty Acid" OR "n3 Fatty Acids" OR "n3 Oil" OR "n3 Oils" OR "n3 Polyunsaturated Fatty Acid" OR "n3 Polyunsaturated Fatty Acids" OR "Omega Forte" OR Clupanodonic OR Docosahexaenoate\* OR Docosahexaenoic OR Docosahexenoic OR Docosapentaenoic OR Eicosapen OR Eicosapentaenoic OR Eicosapentanoic OR Eicosatetraenoic OR Eicosatrienoic OR Epaisdin OR Epanova OR Heneicosapentaenoic OR Hexadecatrienoic OR Icosapentaenoic OR Linolenate\* OR Linolenic OR Moroctic OR Neuroprostan\* OR "Omega 3" OR Omega3 OR PUFA OR PUFAs OR Sakana OR Stearidonic OR Tetracosahexaenoic OR Tetracosapentaenoic OR Timnodonic )

S1 ( (MH "Bronchopulmonary Dysplasia") OR (MH "Infant, Premature") OR (MH "Labor, Premature") OR (MH "Childbirth, Premature") OR (MH "Outcomes of Prematurity+") ) OR TI ( Prematur\* OR Preterm\* OR "Pre-Mature" OR "Pre-Term" OR "Pre-Maturity" OR "Pre-Terms" OR Immatur\* OR "Lung Dysplasia" OR "Bronchopulmonary Dysplasia" ) OR AB ( Prematur\* OR Preterm\* OR "Pre-Mature" OR "Pre-Term" OR "Pre-Maturity" OR "Pre-Terms" OR Immatur\* OR "Lung Dysplasia" OR "Bronchopulmonary Dysplasia" )

B. ClinicalTrials.Gov

Advanced Search

Study Type Interventional

Conditions Preterm OR Premature OR Prematurity OR Bronchopulmonary Dysplasia

Interventions Omega OR Omega3 OR Fatty Acid OR Fatty Acids OR Polyunsaturated OR PUFA OR PUFAs OR Linolenic OR Docosahexaenoic OR Eicosapentaenoic OR Linolenate

C. Cochrane Library

([mh "Bronchopulmonary Dysplasia"] OR [mh "Infant, Premature, Diseases"] OR [mh "Obstetric Labor, Premature"] OR [mh "Premature Birth"] OR [mh "Infant, Premature"] OR [mh "Infant, Extremely Premature"] OR ("Lung Dysplasia" OR "Bronchopulmonary Dysplasia" OR Prematur\* OR Preterm\* OR "Pre-Mature" OR "Pre-Term" OR "Pre-Maturity" OR "Pre-Terms" OR Immatur\*):ti,ab) AND ([mh "Fatty Acids, Omega-3"] OR [mh "alpha-Linolenic Acid"] OR [mh "Docosahexaenoic Acids"] OR [mh "Eicosapentaenoic Acid"] OR [mh Neuroprostanes] OR ("Bilantin Omega" OR "Conchol 36" OR "Eicosa E" OR "n 3 Fatty Acid" OR "n 3 Fatty Acids" OR "n 3 Oil" OR "n 3 Oils" OR "n 3 Polyunsaturated Fatty Acid" OR "n 3 Polyunsaturated Fatty Acids" OR "n3 Fatty Acid" OR "n3 Fatty Acids" OR "n3 Oil" OR "n3 Oils" OR "n3 Polyunsaturated Fatty Acid" OR "n3 Polyunsaturated Fatty Acids" OR "Omega Forte" OR Clupanodonic OR Docosahexaenoate\* OR Docosahexaenoic OR Docosahexenoic OR Docosapentaenoic OR Eicosapen OR Eicosapentaenoic OR Eicosapentanoic OR Eicosatetraenoic OR Eicosatrienoic OR Epaisdin OR Epanova OR Heneicosapentaenoic OR Hexadecatrienoic OR Icosapentaenoic OR Linolenate\* OR Linolenic OR Moroctic OR Neuroprostan\* OR "Omega 3" OR Omega3 OR PUFA OR PUFAs OR Sakana OR Stearidonic OR Tetracosahexaenoic OR Tetracosapentaenoic OR Timnodonic):ti,ab)

D. EMBASE

Lung Dysplasia/ OR Prematurity/ OR "Immature and Premature Labor"/ OR Premature Labor/ OR ("Lung Dysplasia" OR "Bronchopulmonary Dysplasia" OR Prematur\* OR Preterm\* OR "Pre-Mature" OR "Pre-Term" OR "Pre-Maturity" OR "Pre-Terms" OR Immatur\*).ti,ab.

Omega 3 Fatty Acid/ OR ("Bilantin Omega" OR "Conchol 36" OR "Eicosa E" OR "n 3 Fatty Acid" OR "n 3 Fatty Acids" OR "n 3 Oil" OR "n 3 Oils" OR "n 3 Polyunsaturated Fatty Acid" OR "n 3 Polyunsaturated Fatty Acids" OR "n3 Fatty Acid" OR "n3 Fatty Acids" OR "n3 Oil" OR "n3 Oils" OR "n3 Polyunsaturated Fatty Acid" OR "n3 Polyunsaturated Fatty Acids" OR "Omega Forte" OR Clupanodonic OR Docosahexaenoate\* OR Docosahexaenoic OR Docosahexenoic OR Docosapentaenoic OR Eicosapen OR Eicosapentaenoic OR Eicosapentanoic OR Eicosatetraenoic OR Eicosatrienoic OR Epaisdin OR Epanova OR Heneicosapentaenoic OR Hexadecatrienoic OR Icosapentaenoic OR Linolenate\* OR Linolenic OR Moroctic OR Neuroprostan\* OR "Omega 3" OR Omega3 OR PUFA OR PUFAs OR Sakana OR Stearidonic OR Tetracosahexaenoic OR Tetracosapentaenoic OR Timnodonic).ti,ab.

Randomization/ OR Crossover-Procedure/ OR Double-Blind Procedure/ OR Randomized Controlled Trial/ OR Single-Blind Procedure/ OR (Random\* OR Factorial\* OR Crossover\* OR (Cross Over\*) OR Cross-Over\* OR Placebo\* OR ((Singl\* OR Doubl\* OR Trebl\* or Tripl\*) adj (Mask\* adj Blind\*)) OR Assign\* OR Allocat\* OR Volunteer\* OR Groups OR Trial\*).mp.

1 AND 2 AND 3

Exp Animals/ OR Exp Invertebrate/ OR Animal Experiment/ OR Animal Model/ OR Animal Tissue/ OR Animal Cell/ OR Nonhuman/

Human/ OR Normal Human/ OR Human Cell/

5 AND 6

5 NOT 7

4 NOT 8

E. Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R)

Bronchopulmonary Dysplasia/ OR Exp Infant, Premature, Diseases/ OR Exp Obstetric Labor, Premature/ OR Premature Birth/ OR Exp Infant, Premature/ OR Infant, Extremely Premature/ OR ("Lung Dysplasia" OR "Bronchopulmonary Dysplasia" OR Prematur\* OR Preterm\* OR "Pre-Mature" OR "Pre-Term" OR "Pre-Maturity" OR "Pre-Terms" OR Immatur\*).ti,ab.

Exp Fatty Acids, Omega-3/ OR alpha-Linolenic Acid/ OR Exp Docosahexaenoic Acids/ OR Eicosapentaenoic Acid/ OR Neuroprostanes/ OR ("Bilantin Omega" OR "Conchol 36" OR "Eicosa E" OR "n 3 Fatty Acid" OR "n 3 Fatty Acids" OR "n 3 Oil" OR "n 3 Oils" OR "n 3 Polyunsaturated Fatty Acid" OR "n 3 Polyunsaturated Fatty Acids" OR "n3 Fatty Acid" OR "n3 Fatty Acids" OR "n3 Oil" OR "n3 Oils" OR "n3 Polyunsaturated Fatty Acid" OR "n3 Polyunsaturated Fatty Acids" OR "Omega Forte" OR Clupanodonic OR Docosahexaenoate\* OR Docosahexaenoic OR Docosahexenoic OR Docosapentaenoic OR Eicosapen OR Eicosapentaenoic OR Eicosapentanoic OR Eicosatetraenoic OR Eicosatrienoic OR Epaisdin OR Epanova OR Heneicosapentaenoic OR Hexadecatrienoic OR Icosapentaenoic OR Linolenate\* OR Linolenic OR Moroctic OR Neuroprostan\* OR "Omega 3" OR Omega3 OR PUFA OR PUFAs OR Sakana OR Stearidonic OR Tetracosahexaenoic OR Tetracosapentaenoic OR Timnodonic).ti,ab.

Clinical Trials as Topic/ OR Controlled Clinical Trials as Topic/ OR Cross-Over Studies/ OR Double-Blind Method/ OR Exp Randomized Controlled Trials as Topic/ OR Pragmatic Clinical Trials as Topic/ OR Single-Blind Method/ OR (Clinical Trial OR Randomized Controlled Trial OR Controlled Clinical Trial OR Pragmatic Clinical Trial).pt. OR (Random\* OR Factorial\* OR Crossover\* OR (Cross Over\*) OR Cross-Over\* OR Placebo\* OR ((Singl\* OR Doubl\* OR Trebl\* or Tripl\*) adj (Mask\* adj Blind\*)) OR Assign\* OR Allocat\* OR Volunteer\* OR Groups OR Trial\*).mp. OR Drug Therapy.fs. NOT (Animals NOT (Humans and Animals)).sh.

1 AND 2 AND 3

F. PubMed

("Bronchopulmonary Dysplasia"[Mesh] OR "Infant, Premature, Diseases"[Mesh] OR "Obstetric Labor, Premature"[Mesh] OR "Premature Birth"[Mesh] OR "Infant, Premature"[Mesh] OR "Infant, Extremely Premature"[Mesh] OR "Lung Dysplasia"[tiab] OR "Bronchopulmonary Dysplasia"[tiab] OR Prematur\*[tiab] OR Preterm\*[tiab] OR "Pre-Mature"[tiab] OR "Pre-Term"[tiab] OR "Pre-Maturity"[tiab] OR "Pre-Terms"[tiab] OR Immatur\*[tiab]) AND ("Fatty Acids, Omega-3"[Mesh] OR "alpha-Linolenic Acid"[Mesh] OR "Docosahexaenoic Acids"[Mesh] OR "Eicosapentaenoic Acid"[Mesh] OR "Neuroprostanes"[Mesh] OR "n 3 Fatty Acid"[tiab] OR "n 3 Fatty Acids"[tiab] OR "n 3 Oil"[tiab] OR "n 3 Oils"[tiab] OR "n 3 Polyunsaturated Fatty Acid"[tiab] OR "n 3 Polyunsaturated Fatty Acids"[tiab] OR "n3 Fatty Acid"[tiab] OR "n3 Fatty Acids"[tiab] OR "n3 Polyunsaturated Fatty Acid"[tiab] OR "n3 Polyunsaturated Fatty Acids"[tiab] OR Clupanodonic[tiab] OR Docosahexaenoate\*[tiab] OR Docosahexaenoic[tiab] OR Docosahexenoic[tiab] OR Docosapentaenoic[tiab] OR Eicosapen[tiab] OR Eicosapentaenoic[tiab] OR Eicosapentanoic[tiab] OR Eicosatetraenoic[tiab] OR Eicosatrienoic[tiab] OR Epanova[tiab] OR Heneicosapentaenoic[tiab] OR Hexadecatrienoic[tiab] OR Icosapentaenoic[tiab] OR Linolenate\*[tiab] OR Linolenic[tiab] OR Neuroprostan\*[tiab] OR "Omega 3"[tiab] OR Omega3[tiab] OR PUFA[tiab] OR PUFAs[tiab] OR Stearidonic[tiab] OR Tetracosahexaenoic[tiab] OR Tetracosapentaenoic[tiab] OR Timnodonic[tiab]) AND ("Clinical Trials as Topic"[Majr] OR "Controlled Clinical Trials as Topic"[Majr] OR "Cross-Over Studies"[Mesh] OR "Double-Blind Method"[Mesh] OR "Pragmatic Clinical Trials as Topic"[Majr] OR "Randomized Controlled Trials as Topic"[Mesh] OR "Single-Blind Method"[Mesh] OR "Randomized Controlled Trial"[pt] OR "Controlled Clinical Trial"[pt] OR "Pragmatic Clinical Trial"[pt] OR Random\*[All Fields] OR Placebo\*[All Fields] OR Trial\*[All Field] OR Groups[All Fields] OR Factorial\*[All Fields] OR Crossover\*[All Fields] OR "Cross Over"[All Fields] OR "Single Blind"[All Fields] OR "Double Blind"[All Fields] OR "Triple Blind"[All Fields])

G. WHO ICTRP

Preterm OR Premature OR Prematurity OR Bronchopulmonary Dysplasia in the Condition

Omega OR Omega3 OR Fatty Acid OR Fatty Acids OR Polyunsaturated OR PUFA OR PUFAs OR Linolenic OR Docosahexaenoic OR Eicosapentaenoic OR Linolenate in the Intervention

Recruitment status is ALL