

# Anexo 2. Estrategia de búsqueda

## 1. Búsqueda de estudios cuantitativos para responder a las preguntas de la GPC

Para cada búsqueda se indica lo siguiente:

- la pregunta PICO que se quiere responder
- nombre de la base de datos consultada
- estrategia de búsqueda utilizada
- límites aplicados
- número de artículos/documentos obtenidos

Aparte de estas búsquedas iniciales, también se realizaron unas alertas en la base de datos PubMed que proporcionaron 40 artículos nuevos

### Pregunta 1:

¿La administración de oxígeno del 21% frente a concentraciones mayores al 21% durante la reanimación del RN con asfixia influye en la morbilidad neurológica?

### PubMed

("Asphyxia Neonatorum"[Mesh] OR "Asphyxia"[Mesh]) AND ("Oxygen Inhalation Therapy"[Mesh] OR "Oxygen"[Mesh]) AND ("Resuscitation"[Mesh] OR "Resuscitation Orders"[Mesh] OR "Cardiopulmonary Resuscitation"[Mesh]) AND (((disability OR "severe disability" OR "neurological morbidity")) OR (((("Cerebral Palsy"[Mesh] OR "Brain Death"[Mesh] OR "Death"[Mesh] OR "Sudden Infant Death"[Mesh]))) AND (infant, newborn[MeSH])

Límites: newborn  
5 artículos  
Sin revisiones.

("Asphyxia Neonatorum"[Mesh] OR "Asphyxia"[Mesh]) AND ("Oxygen Inhalation Therapy"[Mesh] OR "Oxygen"[Mesh]) AND ("Resuscitation"[Mesh] OR "Resuscitation Orders"[Mesh] OR "Cardiopulmonary Resuscitation"[Mesh]) AND (((disability OR "severe disability" OR "neurological morbidity")) OR (((("Cerebral Palsy"[Mesh] OR "Brain Death"[Mesh] OR "Death"[Mesh] OR "Sudden Infant Death"[Mesh]))) AND ((Meta-Analysis[ptyp] OR Review[ptyp]) AND infant, newborn[MeSH])

Límites: Metanalysis, Review, newborn  
6 artículos

“Resuscitation”[Mesh])) AND (((“Oxygen”[Mesh]) OR (“Air”[Mesh])) AND (((“Hypoxia-Ischemia, Brain”[Mesh]) OR (“Asphyxia”[Mesh] OR “Asphyxia Neonatorum”[Mesh])) AND ((Meta-Analysis[ptyp] OR Randomized Controlled Trial[ptyp] OR Review[ptyp]) AND infant, newborn[MeSH])

39 artículos

### Cochrane English

(MeSH descriptor Cerebral Palsy explode all trees OR (cerebral palsy) OR (severe disability) OR (neurological morbidity)) AND (MeSH descriptor Death explode all trees OR MeSH descriptor Fetal Death explode all trees) AND (MeSH descriptor Resuscitation explode all trees) AND (MeSH descriptor Oxygen explode all trees)

0 resultados

### Pregunta 2:

¿Una puntuación de Apgar de 0 a 10 minutos conlleva consistentemente morbilidad neurológica grave?

### PubMed

“neurological morbidity” AND (“Apgar Score”[Mesh] AND (“Morbidity”[Mesh] OR “Mortality”[Mesh] OR “Fetal Mortality”[Mesh] OR “Infant Mortality”[Mesh] OR “Perinatal Mortality”[Mesh]))

2 artículos

(“Apgar Score”[Mesh] AND neurological morbidity AND “Asphyxia Neonatorum”[Mesh] AND infant, newborn[MeSH])

Límites: Newborn: birth-1 month

23 resultados

(disability OR severe disability OR (“Cerebral Palsy”[Mesh] OR (“Brain Death”[Mesh] OR “Death”[Mesh]) OR (neurological morbidity)) AND (“Apgar Score”[Mesh] AND (“Asphyxia Neonatorum”[Mesh] AND (Meta-Analysis[ptyp] OR Review[ptyp])) AND infant, newborn[MeSH])

Límites: Meta-Analysis, Review, Newborn: birth-1 month

15 artículos

### Cochrane English

(MeSH descriptor Asphyxia Neonatorum explode all trees OR MeSH descriptor Asphyxia explode all trees) AND MeSH descriptor Apgar Score explode all trees AND neurological morbidity

19 resultados

(MeSH descriptor Cerebral Palsy explode all trees OR MeSH descriptor Death explode all trees OR neurological morbidity) AND (MeSH descriptor Asphyxia Neonatorum explode all trees OR MeSH descriptor Asphyxia explode all trees) AND MeSH descriptor Apgar Score explode all trees

1 resultado

### Pregunta 3:

¿Cuál de los siguientes factores acaecidos en los recién nacidos con EHI durante las primeras 72 horas de vida se asocian con una mayor morbimortalidad neurológica a corto y largo plazo?

### PubMed

(Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*) AND (((("Hypercapnia"[Mesh]) OR ("Hyperglycemia"[Mesh]) OR ("Hypoglycemia"[Mesh]) OR "Persistent Hyperinsulinemia Hypoglycemia of Infancy"[Mesh]) OR ("Fever"[Mesh]))) AND ((((((disability)) OR (severe disability)) OR ("Cerebral Palsy"[Mesh])) OR ("Brain Death"[Mesh] OR "Death"[Mesh])) OR (neurological morbidity))

12 artículos

((Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*)) AND (((("Hypercapnia"[Mesh]) OR ("Hyperglycemia"[Mesh]) OR ("Hypoglycemia"[Mesh]) OR "Persistent Hyperinsulinemia Hypoglycemia of Infancy"[Mesh]) OR ("Fever"[Mesh]))) AND ((((((disability)) OR (severe disability)) OR ("Cerebral Palsy"[Mesh])) OR ("Brain Death"[Mesh] OR "Death"[Mesh])) OR (neurological morbidity))) AND (infant, newborn[MeSH])

Límites: Newborn: birth-1 month

3 artículos

(Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*) AND (((("Hypercapnia"[Mesh]) OR ("Hypocapnia"[Mesh]) OR ("Hyperglycemia"[Mesh]) OR ("Hypoglycemia"[Mesh]) OR "Persistent Hyperinsulinemia Hypoglycemia of Infancy"[Mesh]) OR ("Fever"[Mesh]))) AND ((((((disability)) OR (severe disability)) OR ("Cerebral Palsy"[Mesh])) OR ("Brain Death"[Mesh] OR "Death"[Mesh])) OR (neurological morbidity))) AND (infant, newborn[MeSH])

6 artículos

## Cochrane English

(MeSH descriptor Hyperthermia, Induced explode all trees OR MeSH descriptor Fever explode all trees OR MeSH descriptor Hypoglycemia explode all trees OR MeSH descriptor Hyperglycemia explode all trees OR MeSH descriptor Hypercapnia explode all trees) AND (MeSH descriptor Cerebral Palsy explode all trees OR MeSH descriptor Death explode all trees OR neurological morbidity)

Límites: Cochrane Reviews

5 resultados, 0 pertinentes

(MeSH descriptor Hyperthermia, Induced explode all trees OR MeSH descriptor Fever explode all trees OR MeSH descriptor Hypoglycemia explode all trees OR MeSH descriptor Hyperglycemia explode all trees OR MeSH descriptor Hypercapnia explode all trees) AND (MeSH descriptor Cerebral Palsy explode all trees OR MeSH descriptor Death explode all trees OR neurological morbidity) AND (hypoxi\* ischemi\*)

0 resultados. Nota: Con EHI no se recuperan artículos

### Pregunta 4:

¿Reduce la hipotermia el riesgo de mortalidad y/o problemas neuroevolutivos?

## PubMed

(#31) AND #28 AND ((Meta-Analysis[ptyp] OR Review[ptyp]) AND “infant, newborn”[MeSH Terms])

Limits: Meta-Analysis, Review, Newborn: birth-1 month

3 artículos

## Cochrane

(((((“Developmental Disabilities”[Mesh] OR neurodevelopment\*[ti] AND ab)) OR (“Cerebral Palsy”[Mesh]) OR (“Infant Mortality”[Mesh] OR “Mortality”[Mesh] OR “Perinatal Mortality”[Mesh] OR “Mortality, Premature”[Mesh]))) AND (((Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields])) AND (“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh] OR Hypothermia[ti])) AND (infant, newborn[MeSH])

Límites: newborn, humans

31 resultados

Encefalopatía\*hipoxi\*isquémica\* AND hipotermia\*  
resultados

(Development\* disabilit\* OR neurodevelopment\* OR cerebral palsy OR mortalit\*) AND (hypoxi\* ischemi\*) and (hypotherm\*) AND (newborn\* OR infant\* OR child\* or neonat\*)  
13 resultados

#### Pregunta 5:

¿La gravedad de la EHI condiciona la eficacia del tratamiento con hipotermia?

#### PubMed

“Hypoxia-Ischemia, Brain”[Mesh] OR hypoxi\*) OR (“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh]) AND (“Cerebral Palsy”[Mesh] OR “Death”[Mesh] OR “Brain Death”[Mesh] OR “Developmental Disabilities”[Mesh] OR “Disabled Children”[Mesh]) OR (cognitive disorder\* OR cognition disorder\*) OR (“Cognition Disorders”[Mesh] OR “Delirium, Dementia, Amnestic, Cognitive Disorders”[Mesh]) AND (((hypothermia OR “therapeutic hypothermia”)) OR (“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh])) AND ((Meta-Analysis[ptyp] OR Review[ptyp]) AND infant, newborn[MeSH])

Límites: Meta-Analysis, Review, Newborn: birth-1 month

36 artículos

(“Hypoxia-Ischemia, Brain”[Mesh] OR (light hypoxi\*) OR (medium hypoxi\*) OR (severe hypoxi\*) OR (acute hypoxi\*)) AND ((hypothermia OR “therapeutic hypothermia”) OR (“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh])) AND (“Cerebral Palsy”[Mesh] OR “Death”[Mesh] OR “Brain Death”[Mesh] OR “Developmental Disabilities”[Mesh] OR “Disabled Children”[Mesh]) OR (cognitive disorder\* OR cognition disorder\*) OR (“Cognition Disorders”[Mesh] OR “Delirium, Dementia, Amnestic, Cognitive Disorders”[Mesh])) AND ((Meta-Analysis[ptyp] OR Review[ptyp]) AND infant, newborn[MeSH])

Límites: Meta-Analysis, Review, Newborn: birth-1 month

22 artículos

#### Cochrane English

((light hypoxi\*) or (medium hypoxi\*) or (severe hypoxi\*) or (acute hypoxi\*) OR MeSH descriptor Hypoxia-Ischemia, Brain) AND (hypotherm\*) AND (cerebral palsy) or (death) or (brain death) or (disabilit\*) or (cognitive disorders)

Límites: Cochrane Reviews

41 resultados

### Pregunta 6:

¿La gravedad de la EHI antes de iniciar el tratamiento con hipotermia terapéutica predice la evolución posterior adversa? Pregunta 7. ¿Ha cambiado la hipotermia el valor del examen clínico para predecir trastornos neuroevolutivos en el RN con EHI moderada o grave?

### PubMed

("Physical Examination"[Mesh] AND (infant, newborn[MeSH])) AND ("Developmental Disabilities"[Mesh] OR neurodevelopment\*) AND (("Hypothermia"[Mesh] OR "Hypothermia, Induced"[Mesh] OR hypothermia[ti] OR hypotermia[All Fields])) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* OR ischemi\*[ti] OR hypoxi\* OR ischemi\*[All Fields]) AND (infant, newborn[MeSH])

Límites: Newborn: birth-1 month

12 artículos

("Physical Examination"[Mesh] AND (infant, newborn[MeSH])) AND ("Developmental Disabilities"[Mesh] OR neurodevelopment\*) AND (("Hypothermia"[Mesh] OR "Hypothermia, Induced"[Mesh] OR hypothermia[ti] OR hypotermia[All Fields])) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* OR ischemi\*[ti] OR hypoxi\* OR ischemi\*[All Fields]) AND (infant, newborn[MeSH]) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* OR ischemi\*[ti] OR hypoxi\* OR ischemi\*[All Fields])

Límites: Meta-Analysis, Review, Newborn: birth-1 month

3 artículos

### Cochrane English

(hypoxi\* ischemi\*) and (hypotherm\*) AND (Development\* disabilit\* ) or (neurodevelopment\*) AND MeSH descriptor Physical Examination explode all trees

7 resultados

(hypoxi\* ischemi\*) and (hypotherm\*) AND (Development\* disabilit\* ) or (neurodevelopment\*) AND MeSH descriptor Physical Examination explode all trees

Límites: Economic evaluations

1 resultado

**Pregunta 8:**

¿Existen tratamientos farmacológicos que, iniciados en las primeras 6-12 horas de vida del recién nacido con EHI moderada o grave, disminuyan el daño cerebral?

**PubMed**

(((((("Drug Administration Schedule"[Mesh] AND (infant, newborn[MeSH])) OR ("Drug Therapy"[Mesh]) OR ("Hypoxia-Ischemia, Brain/drug therapy"[Mesh] AND (drug\*[ti] OR drug\*[All Fields] OR pharmacolog\*[ti] OR pharmacolog\*[All Fields])) AND (infant, newborn[MeSH])) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields]) AND (infant, newborn[MeSH])) AND ("Brain Injuries"[Mesh] OR "Hypoxia, Brain"[Mesh]) AND (infant, newborn[MeSH])

Limites: newborn, humans

25 artículos

((((((("Xenon"[Mesh]) OR ("Erythropoietin"[Mesh]) OR ("Allopurinol"[Mesh]) OR ("topiramate"[Supplementary Concept]) OR ("Phenobarbital"[Mesh]) OR ("Thiopental"[Mesh]) OR ("Barbiturates"[Mesh])) AND ((hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*) OR ("Hypoxia-Ischemia, Brain"[Mesh]) AND ((Clinical Trial[ptyp] OR Meta-Analysis[ptyp] OR Randomized Controlled Trial[ptyp] OR Review[ptyp]) AND infant, newborn[MeSH]) Randomized Controlled Trial, Reviwe, Meta-analysis, Newborn: birth-1 month

36 artículos

**Pregunta 9:**

¿La combinación de hipotermia de hipotermia con topiramato, EPO, alopurinol o xenon reduce el riesgo de muerte-discapacidad a los 18-24 meses en el RN con EHI moderada o grave?

**PubMed**

((("Hypothermia"[Mesh] OR "Hypothermia, Induced"[Mesh] OR hypothermia[ti] OR hypothermia)) AND ((("Allopurinol"[Mesh] OR allopurinol[ti] OR allopurinol[All Fields]) OR ("Erythropoietin"[Mesh] OR erythropoietin[ti] OR erythropoietin[All Fields]) OR ("topiramate"[Supplementary Concept] OR topiramate[ti] OR topiramate[All Fields]) OR "Xenon"[Mesh])) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields]) AND ((infant, newborn[MeSH] OR infant[MeSH:noexp] OR child, preschool[MeSH]))

Limites: Newborn: birth-1 month, Infant: 1-23 months, Preschool Child: 2-5 years

15 artículos

((("Hypothermia"[Mesh] OR "Hypothermia, Induced"[Mesh] OR hypothermia[ti] OR hypothermia)) AND ((("Allopurinol"[Mesh] OR allopurinol[ti] OR allopurinol[All Fields]) OR ("Erythropoietin"[Mesh] OR erythropoietin[ti] OR erythropoietin[All Fields]) OR ("topiramate"[Supplementary Concept] OR topiramate[ti] OR topiramate[All Fields]) OR "Xenon"[Mesh])) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields]) AND ((Meta-Analysis[ptyp] OR Review[ptyp]) AND (infant, newborn[MeSH] OR infant[MeSH:noexp] OR child, preschool[MeSH]))

Limites: Newborn: birth-1 month, Infant: 1-23 months, Preschool Child: 2-5 years, review, meta-analysis

10 artículos

(((((("Developmental Disabilities"[Mesh] OR neurodevelopment\*[ti] AND ab)) OR ("Cerebral Palsy"[Mesh])) OR ("Infant Mortality"[Mesh] OR "Mortality"[Mesh] OR "Perinatal Mortality"[Mesh] OR "Mortality, Premature"[Mesh])) AND (((Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields])) AND ("Hypothermia"[Mesh] OR "Hypothermia, Induced"[Mesh] OR Hypothermia[ti])) AND (infant, newborn[MeSH]) AND Search ("Allopurinol"[Mesh] OR allopurinol[ti] OR ("allopurinol"[MeSH Terms] OR "allopurinol"[All Fields]) OR ("Erythropoietin"[Mesh] OR erythropoietin[ti] OR ("erythropoietin"[MeSH Terms] OR "erythropoietin"[All Fields])) OR ("topiramate"[Supplementary Concept] OR topiramate[ti] OR ("topiramate"[Supplementary Concept] OR "topiramate"[All Fields]) OR ("Xenon"[Mesh] OR xenon))

0 artículos

((("Hypothermia"[Mesh] OR "Hypothermia, Induced"[Mesh] OR hypothermia[ti] OR hypothermia)) AND ((("Allopurinol"[Mesh] OR allopurinol[ti] OR allopurinol[All Fields]) OR ("Erythropoietin"[Mesh] OR erythropoietin[ti] OR erythropoietin[All Fields]) OR ("topiramate"[Supplementary Concept] OR topiramate[ti] OR topiramate[All Fields]) OR "Xenon"[Mesh])) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields]) AND ((Meta-Analysis[ptyp] OR Review[ptyp]) AND (infant, newborn[MeSH] OR infant[MeSH:noexp] OR child, preschool[MeSH])) AND ((Developmental Disabilities OR neurodevelopment) OR (mortality))

Limites: Newborn: birth-1 month, Infant: 1-23 months, Preschool Child: 2-5 years

1 artículo

## Cochrane English

[(newborn\*)or (infant\*) or (child\*) or (neonat\*)] AND [(hypoxi\* ischemi\*) and (hypotherm\*)] AND [(development\* disabilit\*) or (neurodevelopment\*)or (cerebral palsy) or (mortalit\*)] AND [(allopurinol) or (erythropoietin) or (topiramate) or (xenon)]

4 resultados

[(newborn\*)or (infant\*) or (child\*) or (neonat\*)] AND [(hypoxi\* ischemi\*) and (hypotherm\*)] AND [(development\* disabilit\*) or (neurodevelopment\*)or (cerebral palsy) or (mortalit\*)] AND [(allopurinol) or (erythropoietin) or (topiramate) or (xenon)]

0 resultados



### Pregunta 10:

¿El tratamiento de las crisis eléctricas en los RN de edad gestacional mayor o igual a 35 semanas con EHI perinatal tratados y no tratados con hipotermia terapéutica influye en el riesgo de muerte o discapacidad a los 18-24 meses?

#### PubMed

("Brain Injuries"[Mesh] OR "Brain Damage, Chronic"[Mesh] OR "Hypoxia, Brain"[Mesh]) AND ((hypothermia OR "therapeutic hypothermia") OR ("Hypothermia"[Mesh] OR "Hypothermia, Induced"[Mesh])) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*) AND ("Drug Therapy"[Mesh]) AND (infant, newborn[MeSH])

Límites: Newborn: birth-1 month

8 artículos. Sin tratamiento farmacol.: 114 artículos

("Brain Injuries"[Mesh] OR "Brain Damage, Chronic"[Mesh] OR "Hypoxia, Brain"[Mesh]) AND ((hypothermia OR "therapeutic hypothermia") OR ("Hypothermia"[Mesh] OR "Hypothermia, Induced"[Mesh])) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*) AND ("Drug Therapy"[Mesh]) AND ((Meta-Analysis[ptyp] OR Review[ptyp]) AND infant, newborn[MeSH])

Límites: Meta-Analysis, Review, Newborn: birth-1 month

4 artículos

"Seizures"[Mesh]) AND (((("Hypoxia-Ischemia, Brain"[Mesh])) OR ("Asphyxia"[Mesh] OR "Asphyxia Neonatorum"[Mesh])) AND ((Clinical Trial[ptyp] OR Meta-Analysis[ptyp] OR Randomized Controlled Trial[ptyp] OR Review[ptyp]) AND infant, newborn[MeSH])

47 artículos

#### Cochrane English

(hypoxi\* ischemi\*) AND (hypotherm\*) AND (electrical seizures) AND (cerebral damage)

4 resultados

### Pregunta 11:

¿La sedación con derivados opioides en el RN con EHI disminuye el riesgo de muerte o discapacidad a los 18-24 meses?

#### PubMed

((“Analgesics, Opioid”[Mesh] OR “Analgesics, Opioid”[Pharmacological Action])) AND (((“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh] OR hypothermia[ti] OR hypothermia) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields]))

5 artículos

((“Analgesics, Opioid”[Mesh] OR “Analgesics, Opioid”[Pharmacological Action])) AND (((“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh] OR hypothermia[ti] OR hypothermia) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields]))OR brain injur\* OR brain damage\* Limits: Newborn: birth-1 month)

0 artículos

((((Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields])) NOT (“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh] OR hypothermia[ti] OR hypothermia) AND (infant, newborn[MeSH]))) AND (“Analgesics, Opioid”[Mesh] OR “Analgesics, Opioid”[Pharmacological Action]) AND (infant, newborn[MeSH])

5 artículos

(Search AND “Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh] OR hypothermia[All Fields]) AND (((((“Analgesics, Opioid”[Mesh] OR “Analgesics, Opioid”[Pharmacological Action])) OR (“Morphine Derivatives”[Mesh])) OR (“Morphine”[Mesh]) OR (“Fentanyl”[Mesh])) AND ((Clinical Trial[ptyp] OR Meta-Analysis[ptyp] OR Randomized Controlled Trial[ptyp] OR Review[ptyp]) AND infant, newborn[MeSH])

6 artículos

#### Cochrane English

(newborn\* ) or (infant\*) or (child\*) or (neonat\*) AND (hypoxi\* ischemi\*) and (hypotherm\*) and (brain damage) or (development\* disabil\*) or (cerebral palsy) AND MeSH descriptor Analgesics, Opioid explode all trees

0 resultados

### Pregunta 12:

¿Cuál es el valor pronóstico de los estudios neurofisiológicos para predecir problemas neuroevolutivos en el RN con EHI moderada o grave? ¿Ha cambiado la hipotermia el valor pronóstico de estas pruebas?

#### PubMed

((("Diagnostic Techniques, Neurological"[Mesh]) OR "Electroencephalography"[Mesh] AND (infant, newborn[MeSH]))) AND (Developmental Disabilities OR neurodevelopment) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields]) AND ((Meta-Analysis[ptyp] OR Review[ptyp]) AND infant, newborn[MeSH])

Límites: Newborn: birth-1 month, review, meta-analysis  
6 artículos

#### PubMed

((((hypoxia ischemia)) OR ("Hypoxia-Ischemia, Brain"[Mesh])) OR (hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields])) AND ("Electroencephalography"[Mesh]) AND ((infant[MeSH] OR infant, newborn[MeSH]))

Límites: newborn, infant,  
292 artículos

(((((hypoxia ischemia)) OR ("Hypoxia-Ischemia, Brain"[Mesh])) OR (hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields])) AND ("Electroencephalography"[Mesh]) AND ((infant[MeSH] OR infant, newborn[MeSH]))) NOT ("Hypothermia"[Mesh] OR "Hypothermia, Induced"[Mesh]) AND ((infant[MeSH] OR infant, newborn[MeSH]))

Límites: newborn, infant,  
238 artículos

(((((hypoxia ischemia)) OR ("Hypoxia-Ischemia, Brain"[Mesh])) OR (hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields])) AND ("Electroencephalography"[Mesh]) AND ((infant[MeSH] OR infant, newborn[MeSH]))) AND ("Hypothermia"[Mesh] OR "Hypothermia, Induced"[Mesh]) AND ((infant[MeSH] OR infant, newborn[MeSH]))

Límites: newborn, infant,  
54 artículos

#### Cochrane English

(Development\* disabilit\* OR neurodevelopment\* OR cerebral palsy ) AND (hypoxi\* ischemi\* and (hypotherm\*)) AND (newborn\* OR infant\* OR child\* or neonat\*) AND MeSH descriptor Diagnostic Techniques, Neurological explode all trees

5 resultados

(Development\* disabilit\* OR neurodevelopment\* OR cerebral palsy ) AND (hypoxi\* ischemi\*) NOT (hypotherm\*) AND (newborn\* OR infant\* OR child\* or neonat\*) AND MeSH descriptor Diagnostic Techniques, Neurological explode all trees

3 resultados

(Development\* disabilit\* OR neurodevelopment\* OR cerebral palsy ) AND (hypoxi\* ischemi\*) and (hypotherm\*) AND (newborn\* OR infant\* OR child\* or neonat\*) AND MeSH descriptor Diagnostic Techniques, Neurological explode all trees

Límites: Economic evaluations

1 resultado

### Pregunta 13:

¿Cuál es el valor pronóstico de las pruebas de imagen para predecir problemas neuroevolutivos en el RN con EHI moderada o grave?  
¿Ha cambiado la hipotermia el valor pronóstico de estas pruebas?

### PubMed

(“Developmental Disabilities”[Mesh] AND neurodevelopment\*) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields]) AND ((“Ultrasonography, Doppler”[Mesh] OR “Magnetic Resonance Imaging”[Mesh]) OR (“Ultrasonography”[Mesh] OR “ultrasonography”[Subheading])) AND (infant, newborn[MeSH]) NOT (“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh] OR hypothermia[ti] OR hypotermia[All Fields])

Límites: Newborn: birth-1 month

12 artículos

(“Developmental Disabilities”[Mesh] AND neurodevelopment\*) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields]) AND ((“Ultrasonography, Doppler”[Mesh] OR “Magnetic Resonance Imaging”[Mesh]) OR (“Ultrasonography”[Mesh] OR “ultrasonography”[Subheading])) AND ((Meta-Analysis[ptyp] OR Review[ptyp]) AND infant, newborn[MeSH]) NOT (“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh] OR hypothermia[ti] OR hypotermia[All Fields])

Límites: Newborn: birth-1 month, review, meta-analysis

0 artículos

((((“Developmental Disabilities”[Mesh] OR neurodevelopment\*)) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields])) AND (“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh] OR hypothermia[ti] OR hypotermia[All Fields])) AND ((“Ultrasonography, Doppler”[Mesh] OR “Magnetic Resonance Imaging”[Mesh]) OR (“Ultrasonography”[Mesh] OR “ultrasonography”[Subheading]))

Límites: Newborn: birth-1 month

7 artículos

((("Developmental Disabilities"[Mesh] OR neurodevelopment\*)) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields])) AND ((("Hypothermia"[Mesh] OR "Hypothermia, Induced"[Mesh] OR hypothermia[ti] OR hypothermia[All Fields])) AND ((("Ultrasonography, Doppler"[Mesh] OR "Magnetic Resonance Imaging"[Mesh] OR "Ultrasonography"[Mesh] OR "ultrasonography"[Subheading]))

Límites: Meta-Analysis, Review, Newborn: birth-1 month

1 artículo

## PubMed

("Hypothermia"[Mesh] OR "Hypothermia, Induced"[Mesh] OR hypothermia[ti] OR hypothermia[All Fields])) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields])) AND ("Diffusion Magnetic Resonance Imaging"[Mesh] OR "Magnetic Resonance Imaging"[Mesh] AND ((infant, newborn[MeSH] OR infant[MeSH]))

Límites: newborn, infant

31 artículos

(Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields])) AND ("Diffusion Magnetic Resonance Imaging"[Mesh] OR "Magnetic Resonance Imaging"[Mesh])) NOT ("Hypothermia"[Mesh] OR "Hypothermia, Induced"[Mesh] OR hypothermia[ti] OR hypothermia[All Fields]) AND ((Clinical Trial[ptyp] OR Randomized Controlled Trial[ptyp] OR Review[ptyp] OR systematic[sb] OR Meta-Analysis[ptyp]) AND (infant, newborn[MeSH] OR infant[MeSH]))

Límites: newborn, infant, meta-analysis, RTC, Reviews, systematic reviews

77 artículos

((("Ultrasonography"[Mesh] OR "ultrasonography"[Subheading] OR "Ultrasonography, Doppler"[Mesh])) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields])) AND ("Hypothermia"[Mesh] OR "Hypothermia, Induced"[Mesh] OR hypothermia[ti] OR hypothermia[All Fields]) AND ((infant[MeSH] OR infant, newborn[MeSH]))

Límites: newborn, infant

7 artículos

("Ultrasonography"[Mesh] OR "ultrasonography"[Subheading] OR "Ultrasonography, Doppler"[Mesh])) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields])) NOT ("Hypothermia"[Mesh] OR "Hypothermia, Induced"[Mesh] OR hypothermia[ti] OR hypothermia[All Fields]) AND ((Clinical Trial[ptyp] OR Randomized Controlled Trial[ptyp] OR Review[ptyp] OR Meta-Analysis[ptyp] OR systematic[sb]) AND (infant[MeSH] OR infant, newborn[MeSH]))

Límites: newborn, infant, meta-analysis, RTC, Reviews, systematic reviews

32 artículos

“Magnetic Resonance Spectroscopy”[Mesh])) AND (“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh] OR hypothermia[ti] OR hypotermia[All Fields])) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields])  
10 artículos

“Magnetic Resonance Spectroscopy”[Mesh])) AND (Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields])) NOT (“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh] OR hypothermia[ti] OR hypotermia[All Fields]) AND ((Clinical Trial[ptyp] OR Meta-Analysis[ptyp] OR Randomized Controlled Trial[ptyp] OR Review[ptyp] OR systematic[sb]) AND (infant, newborn[MeSH] OR infant[MeSH]))

Límites: newborn, infant, meta-analysis, RTC, Reviews, systematic reviews  
23 artículos

### Cochrane English

(MeSH descriptor Ultrasonography, Doppler explode all trees or MeSH descriptor Magnetic Resonance Imaging explode all trees or MeSH descriptor Ultrasonography explode all trees) AND (hypoxi\* ischemi\*) not (hypotherm\* AND (Development\* disabilit\* ) or (neurodevelopment\*))

2 resultados

(MeSH descriptor Ultrasonography, Doppler explode all trees or MeSH descriptor Magnetic Resonance Imaging explode all trees or MeSH descriptor Ultrasonography explode all trees) AND (hypoxi\* ischemi\*) AND (hypotherm\*) AND (Development\* disabilit\* ) or (neurodevelopment\*)

0 resultados

### Pregunta 14:

¿Cuál es el valor pronóstico de los biomarcadores en sangre, orina, o LCR para predecir problemas neuroevolutivos en el RN con EHI moderada o grave? ¿Ha cambiado éste con la hipotermia?

### PubMed

((Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields]) AND ((“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh] OR hypothermia[ti] OR hypotermia[All Fields])) AND (“Biological Markers/blood”[Mesh] OR “Biological Markers/cerebrospinal fluid”[Mesh] OR “Biological Markers/urine”[Mesh]))

Límites: Meta-Analysis, Review, Newborn: birth-1 month

5 artículos

((Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields]) AND (“Biological Markers/blood”[Mesh] OR “Biological Markers/cerebrospinal fluid”[Mesh] OR “Biological Markers/urine”[Mesh]) NOT (“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh] OR hypothermia[ti] OR hypotermia[All Fields])) AND ((Meta-Analysis[ptyp] OR Review[ptyp]) AND infant, newborn[MeSH])

Límites: Meta-Analysis, Review, Newborn: birth-1 month

4 resultados

hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*) OR (“Hypoxia-Ischemia, Brain”[Mesh])) AND ((((((“activin A”[Supplementary Concept])) OR (“Creatine Kinase, BB Form”[Mesh])) OR (“Myelin Basic Proteins”[Mesh])) OR (“Glial Fibrillary Acidic Protein”[Mesh])) OR (“S-100 calcium-binding protein beta subunit”[Supplementary Concept])) OR (neuron specific enolase)) AND (infant, newborn[MeSH])

newborn

59 artículos

((Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields]) AND (“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh] OR hypothermia[ti] OR hypotermia[All Fields])) AND (“Biological Markers/blood”[Mesh] OR “Biological Markers/cerebrospinal fluid”[Mesh] OR “Biological Markers/urine”[Mesh])

Meta-Analysis, Review, Newborn: birth-1 month

8 artículos, 2 pertinentes.

((Hypoxia-Ischemia, Brain[Mesh] OR hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*[All Fields]) AND (“Biological Markers/blood”[Mesh] OR “Biological Markers/cerebrospinal fluid”[Mesh] OR “Biological Markers/urine”[Mesh]) NOT (“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh] OR hypothermia[ti] OR hypotermia[All Fields])) AND ((Meta-Analysis[ptyp] OR Review[ptyp]) AND infant, newborn[MeSH])

Límites: Meta-Analysis, Review, Newborn: birth-1 month

5 artículos, 1 pertinente

hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*) OR (“Hypoxia-Ischemia, Brain”[Mesh])) AND ((((((“activin A”[Supplementary Concept])) OR (“Creatine Kinase, BB Form”[Mesh])) OR (“Myelin Basic Proteins”[Mesh])) OR (“Glial Fibrillary Acidic Protein”[Mesh])) OR (“S-100 calcium-binding protein beta subunit”[Supplementary Concept])) OR (neuron specific enolase)) AND (infant, newborn[MeSH])

Límites: newborn

61 artículos, 3 pertinentes.

## Cochrane English

(hypoxi\* ischemi\*) not (hypotherm\*) AND (Development\* disabilit\* ) or (neurodevelopment\*) AND MeSH descriptor Biological Markers explode all trees

2 resultados

(hypoxi\* ischemi\*) and (hypotherm\*) AND (Development\* disabilit\* ) or (neurodevelopment\*) AND MeSH descriptor Biological Markers explode all trees  
1 resultado

(hypoxi\* ischemi\*) not (hypotherm\*) AND (Development\* disabilit\* ) or (neurodevelopment\*) AND MeSH descriptor Biological Markers explode all trees  
Límites: 2011-2012, reviews only  
12 artículos

(hypoxi\* ischemi\*) and (hypotherm\*) AND (Development\* disabilit\* or (neurodevelopment\*) AND MeSH descriptor Biological Markers explode all trees  
Límites: 2011-2012, reviews only  
3 artículos

### Coste efectividad, en general:

Cost\_EHI\_hipo

#### PubMed

((hypoxi\* AND ischemi\*[ti] OR hypoxi\* AND ischemi\*)) OR (“Hypoxia-Ischemia, Brain”[Mesh])) AND (“Hypothermia”[Mesh] OR “Hypothermia, Induced”[Mesh])) AND (((cost[ti] OR costs[ti] OR econom\*[ti] OR reimburs\*[ti] OR budget\*[ti] OR expeditur\*[ti])) OR (“Costs and Cost Analysis”[Mesh] OR “Cost-Benefit Analysis”[Mesh] OR “Cost Allocation”[Mesh] OR “Cost of Illness”[Mesh] OR “Cost Control”[Mesh] OR “Cost Sharing”[Mesh] OR “Cost Savings”[Mesh] OR “Technology, High-Cost”[Mesh] OR “Health Care Costs”[Mesh] OR “Drug Costs”[Mesh]) OR “Health Expenditures”[Mesh]))  
5 artículos

Cost\_EHI\_hipo

#### NHSEED

hypothermia AND hypox\*  
3 resultados

Outcomes EHI review RTC

#### PubMed

“Outcome Assessment (Health Care)”[Mesh] OR “Treatment Outcome”[Mesh] OR “Fatal Outcome”[Mesh] OR “Outcome and Process Assessment (Health Care)”[Mesh]) AND (((“Hypoxia-Ischemia, Brain”[Mesh]) OR (“Asphyxia”[Mesh] OR “Asphyxia Neonatorum”[Mesh])) AND ((Clinical Trial[ptyp] OR Meta-Analysis[ptyp] OR Randomized Controlled Trial[ptyp] OR Review[ptyp]) AND infant, newborn[MeSH])

96 artículos



Outcomes EHI hipotermia, review RTC

## PubMed

("Outcome Assessment (Health Care)"[Mesh] OR "Treatment Outcome"[Mesh] OR "Fatal Outcome"[Mesh] OR "Outcome and Process Assessment (Health Care)"[Mesh]) AND (((("Hypoxia-Ischemia, Brain"[Mesh]) OR ("Asphyxia"[Mesh] OR "Asphyxia Neonatorum"[Mesh]))) AND ("Hypothermia"[Mesh] OR "Hypothermia, Induced"[Mesh] OR hypotermia[All Fields]) AND ((Clinical Trial[ptyp] OR Meta-Analysis[ptyp] OR Randomized Controlled Trial[ptyp] OR Review[ptyp]) AND infant, newborn[MeSH])

49 artículos

## 2. Búsqueda de estudios cualitativos

La búsqueda bibliográfica responde al objetivo general del estudio: detectar el impacto que se produce en las familias cuyos hijos/as han tenido una EHI y han precisado un tratamiento con hipotermia moderada sostenida. En este sentido la estrategia de búsqueda se centra en aquellos descriptores relacionados con la encefalopatía, la hipotermia y la familia. Ante la inexistencia de bibliografía específica, se realizó una búsqueda teniendo en cuenta tanto aquellos conceptos relacionados tanto con la situación clínica de urgencia, riesgo vital, separación padres-hijo y estrategias de afrontamiento que experimentan las familias, como los que hacían relación a la propia metodología cualitativa

Para cada búsqueda se indica lo siguiente:

- nombre de la base de datos consultada
- estrategia de búsqueda utilizada
- límites aplicados
- número de artículos/documentos obtenidos

## PubMed

Search Search (ischem\*[TI] OR ischaem\*[TI]) AND encephalopathy AND hypoxi\*[TI] AND Search ((("Hypoxia-Ischemia, Brain"[Mesh]) OR "Brain Ischemia"[Mesh]) OR "Hypoxia, Brain"[Mesh]) AND ("Family"[Mesh] OR "Family Nursing"[Mesh] OR "Family Therapy"[Mesh] OR "Parents"[Mesh] OR "Single Parent"[Mesh] OR "Parenting"[Mesh])

33 artículos, 9 pertinentes

Search Search (ischem\*[TI] OR ischaem\*[TI]) AND encephalopathy AND hypoxi\*[TI] AND Search ((("Hypoxia-Ischemia, Brain"[Mesh]) OR "Brain Ischemia"[Mesh]) OR "Hypoxia, Brain"[Mesh]) AND ("Family"[Mesh] OR "Family Nursing"[Mesh] OR "Family Therapy"[Mesh] OR "Parents"[Mesh] OR "Single Parent"[Mesh] OR "Parenting"[Mesh])

Límites: newborn (birth-1 month)

12 artículos, 0 pertinentes

Search Search (ischem\*[TI] OR ischaem\*[TI]) AND encephalopathy AND hypoxi\*[TI] AND Search (“Hypoxia-Ischemia, Brain”[Mesh]) OR “Brain Ischemia”[Mesh]) OR “Hypoxia, Brain”[Mesh]) AND (stress[TI])

Límites: newborn (birth-1 month)

13 artículos, 0 pertinentes. estrés en neonatos

Search Search (ischem\*[TI] OR ischaem\*[TI]) AND encephalopathy AND hypoxi\*[TI] AND Search (“Hypoxia-Ischemia, Brain”[Mesh]) OR “Brain Ischemia”[Mesh]) OR “Hypoxia, Brain”[Mesh]) AND (family AND stress)

13 artículos, 0 pertinentes

Search Search (ischem\*[TI] OR ischaem\*[TI]) AND encephalopathy AND hypoxi\*[TI] AND Search (“Hypoxia-Ischemia, Brain”[Mesh]) OR “Brain Ischemia”[Mesh]) OR “Hypoxia, Brain”[Mesh]) AND (parent\* AND neonatal intensive care)

5 artículos

Search (“Intensive Care Units, Neonatal”[Mesh] Limits: Humans, Newborn: birth-1 month) AND Search (“Family Health”[Mesh]) OR “Family Nursing”[Mesh] Limits: Humans, Newborn: birth-1 month)

Límites: newborn (birth-1 month)

50 artículos

## PsycINFO

hypoxic ischemic encephalopathy AND parents

2 artículos, 0 pertinentes

hypoxic ischemic encephalopathy AND family

4 artículos, 0 pertinentes

neonatal intensive care AND coping

52 artículos

Sibling AND Intensive care nursing AND newborn

0 artículos

Sibling AND Intensive care unit AND newborn

2 artículos, 2 pertinentes

family nursing AND Intensive care unit AND newborn

2 artículos, 2 pertinentes

family nursing AND Intensive care nursing AND newborn

0 artículos

parent stress index AND Intensive care nursing AND newborn  
0 artículos

parent stress index AND Intensive care unit AND newborn  
1 artículos, 1 pertinente

parents AND neonatal AND transport  
5 artículos

parents AND critical neonatal AND transport  
0 artículos

parents AND newborn AND transport  
3 artículos

## CINHAL

Parenting stress index AND Intensive care nursing AND newborn  
3 artículos, 3 pertinentes.

Parenting AND Intensive care nursing AND newborn  
23 artículos

Parenting AND Intensive care unit AND newborn  
33 artículos

Sibling AND Intensive care nursing AND newborn  
2 artículos, 2 pertinentes

Sibling AND Intensive care unit AND newborn  
5 artículos, 5 pertinentes

critical neonatal AND transport  
7 artículos

critical newborn AND transport  
2 artículos

newborn AND transport AND parent  
3 artículos

neonatal AND transport AND parents  
20 artículos

Han transcurrido más de 5 años desde la publicación de esta Guía de Práctica Clínica y está pendiente su actualización.