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| --- | --- | --- | --- |
| Search concepts | 1. Newborn | 2. Hypoxic Ischaemic Encephalopathy | 3. NIRS monitoring |
| PubMed | infant, newborn[MeSH Terms] OR infant[All Fields] OR "newborn"[All Fields] OR  newborn\* OR neonat\* OR infan\* | “hypoxia ischaemia” OR hypoxic ischemia OR “hypoxic ischaemia” OR “hypoxic ischemic” OR “hypoxic ischaemic” OR HIE OR  asphyxia\* OR “anoxia” [MeSH] OR  encephalopathy OR  “asphyxia neonatorum”[MeSH] OR “Hypoxia‐Ischemia, Brain”[MeSH] OR “neonatal encephalopathy” | “spectroscopy, near-infrared”[MeSH] OR “(cerebr\* or regional\* or tissue\* or brain\*) AND (oxymet\* or oximet\* or oxygen\*)” OR “near infrared spectroscopy”  OR  "near infrared reflectance spectroscopy"  OR  nirs\*  OR  "near ir spectroscopy"  OR  invos\*  OR  equanox\*  OR  foresight\*  OR  "fore sight\*"  OR  cerox\*  OR  "cer ox\*"  OR  "in spectra"  OR  inspectra\*  OR  niro\*  OR  "near ir spectroscop\*"  OR  "near\* infrared\* spectroscop\*"  OR  sto2  OR  rsco2  OR  rso2  OR  scto2  OR  "brain oxygenation"  OR  "cerebral oximeter"  OR  "cerebral oxim\*"  OR  "cerebral oxygen |
| Scopus | |  | | --- | | infan\*  OR  newborn\*  OR  neonat\* | | hypoxia  OR  hypoxemia  OR  hypoxi\*  OR  hypoxe\*  OR  hypoxic  OR  anoxia  OR  anoxaemia  OR  asphyxia  OR  asphyxi\*  OR  "hypoxic ischemic encephalopathy"  OR  "newborn hypoxia"  OR  ischaemia  OR  ischaemi\*  OR  ischemi\*  OR  "neonatal encephalopathy"  OR  "brain hypoxia"  OR  "perinatal asphyxi\*" | near infrared spectroscopy  OR  "near infrared reflectance spectroscopy"  OR  nirs\*  OR  "near ir spectroscopy"  OR  invos\*  OR  equanox\*  OR  foresight\*  OR  "fore sight\*"  OR  cerox\*  OR  "cer ox\*"  OR  "in spectra"  OR  inspectra\*  OR  niro\*  OR  "near ir spectroscop\*"  OR  "near\* infrared\* spectroscop\*"  OR  sto2  OR  rsco2  OR  rso2  OR  scto2  OR  "brain oxygenation"  OR  "cerebral oximeter"  OR  "cerebral oxim\*"  OR  "cerebral oxygen saturation"  OR  "cerebral oxygenation"  OR  "cerebral oxygen\*"  OR  "toe\*"  OR  "regional oxymet\*" |
| WOS | newborn\* OR neonat\* OR infan\* | "hypoxi? isch$emi?" OR HIE OR asphyxia OR anoxia OR (hypoxi? OR ischaemi?) NEAR encephalop\* OR (hypoxi? OR ischaemi?) NEAR brain OR encephalopath\* OR “asphyxia neonatorum” OR “neonatal encephalopathy” | “spectroscopy, near-infrared”[MeSH] OR “(cerebr\* or regional\* or tissue\* or brain\*) AND (oxymet\* or oximet\* or oxygen\*)” OR “near infrared spectroscopy”  OR  "near infrared reflectance spectroscopy"  OR  nirs\*  OR  "near ir spectroscopy"  OR  invos\*  OR  equanox\*  OR  foresight\*  OR  "fore sight\*"  OR  cerox\*  OR  "cer ox\*"  OR  "in spectra"  OR  inspectra\*  OR  niro\*  OR  "near ir spectroscop\*"  OR  "near\* infrared\* spectroscop\*"  OR  sto2  OR  rsco2  OR  rso2  OR  scto2  OR  "brain oxygenation"  OR  "cerebral oximeter"  OR  "cerebral oxim\*"  OR  "cerebral oxygen |
| Embase | infant'/exp OR infant OR infan\* OR newborn\* OR neonat\* | hypoxia'/exp OR 'hypoxemia'/exp OR hypoxi\* OR hypoxe\* OR hypoxic OR 'anoxia'/exp OR 'anoxaemia'/exp OR 'asphyxia'/exp OR asphyxi\* OR 'hypoxic ischemic encephalopathy'/exp OR 'newborn hypoxia'/exp OR 'ischemia'/exp OR 'ischaemia'/exp OR ischaemi\* OR ischemi\* OR 'neonatal encephalopathy'/exp OR 'brain hypoxia'/exp | near infrared spectroscopy'/exp OR 'near infrared reflectance spectroscopy'/exp OR 'nirs\*' OR 'near ir spectroscopy' OR invos\* OR equanox\* OR foresight\* OR 'fore sight\*' OR cerox\* OR 'cer ox\*' OR 'in spectra' OR inspectra\* OR niro\* OR 'near ir spectroscop\*' OR 'near\* infrared\* spectroscop\*' OR 'sto2 or rsco2 or rso2 or scto2' OR 'brain oxygenation'/exp OR 'cerebral oximeter'/exp OR 'cerebral oxim\*' OR 'cerebral oxygen saturation'/exp OR 'cerebral oxygenation'/exp OR 'cerebral oxygen\*' OR 'toe\*' OR 'regional oxymet\*' |
| Cochrane library | newborn\* OR neonat\* OR infan\* | “hypoxia ischaemia” OR “hypoxia ischemia” OR “hypoxia ischaemic” OR “hypoxia ischemic” OR “hypoxic ischemia” OR “hypoxic ischaemia” OR “hypoxic ischemic” OR “hypoxic ischaemic” OR HIE OR asphyxia\* OR "hypoxia" [MeSH] OR “anoxia” [MeSH] OR encephalopath\* OR “asphyxia neonatorum” [MeSH] OR Hypoxia‐Ischemia, Brain[MeSH] OR “neonatal encephalopathy” | “spectroscopy, near-infrared” [MeSH] OR “INVOS\* or EQUANOX\* or FORESIGHT\* or FORE-SIGHT\* or CerOX\* or Cer-OX\* or IN-Spectra or INSpectra\* or Niro\*” OR “NIRS\*” OR “near IR spectroscop\*” OR “near\* infrared\* spectroscop\*” OR “(cerebr\* or regional\* or tissue\* or brain\*) AND (oxymet\* or oximet\* or oxygen\*)” OR “StO2 or rscO2 or rSO2 or SctO2” OR \*NIRS OR \*TOE\* |

Online Supplementary Table 1. Search terms used.