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| Qeury # | **P** – Patient, Problem or Population | | **I** – Intervention | C - Comparison, control or comparator | O - Outcome |
| **A** | **Impact of fasting duration in clinical or simulated fasting setting** | **a defined fasting prescription** | | **alternative fasting regimens** |  |
| 1 | Children undergoing elective anaesthesia, Children with or without co-morbidity,  pre-anaesthesia healthy volunteers | Preoperative fasting for **clear fluids** less than 2 h and at least 1 h OR Preoperative fasting for clear fluids less than 1 hour | | Preop fasting for clear fluids at least 2 h OR any other duration of fluid fasting OR (overnight) fasting | Incidence of pulmonary aspiration OR Symptoms / morbidity / treatment of pulmonary aspiration OR incidence of fasting time (> x hours)/effective fasting time for clear fluids, non-clear fluids, breast milk, formula milk, solids OR hunger OR thirst OR behavioral changes OR compliance at induction OR gastric content volume OR gastric residual volume OR gastric emptying half life OR gastric antral area (antral cross sectional area) OR gastric motility OR gastric pH OR intragastric pressure OR accomodation/gastric tone OR (pre-/intra-op) hypoglycaemia or other metabolic effects metabolic state including surrogates (blood glucose, ketone bodies, BE, ph, lactate) OR stress level and surrogates (cortisole, ?) OR  impaired stress response OR postop insuline resistance OR need for inotropic support OR Subjective well being OR  PONV OR  Length of stay |
| 2 | Preoperative fasting for **human breast milk** < 4h and at least 2 hours OR Preoperative fasting for human breast milk < 6 h and at least 4 h | | Preoperative fasting for human breast milk at least 4 h OR Preoperative fasting for human breast milk at least 6 h OR any other duration of human breast milk fasting OR (overnight) fasting |
| 3 | Preoperative fasting for **formula milk** < 4 h and at least 2 h OR Preoperative fasting for formula milk < 6 h and at least 4 h | | Preoperative fasting for human breast milk at least 6 h OR any other duration of human breast milk fasting OR (overnight) fasting |
| 4 | Ingestion of of **non-clear fluids / solids / semi-solids / "light breakfast"** < 6 h before measurement | | Ingestion of solids / semi-solids / "light breakfast" > 6 h before measurement OR (overnight) fasting |
| **B** | **Impact of co-morbidity, medication and other environmental factors in clinical or simulated fasting setting** | **a defined fasting prescription** | | **similar fasting regimen in patients with differing / no co-morbidity / medication** |  |
| 5 | Obese children, pre-anaesthesia OR Obese children, healthy volunteers | Ingestion of clear fluid or solid food, any defined fasting regimen | | Healthy children | Incidence of pulmonary aspiration OR Symptoms / morbidity / treatment of pulmonary aspiration OR incidence of fasting time (> x hours)/effective fasting time for clear fluids, non-clear fluids, breast milk, formula milk, solids OR hunger OR thirst OR behavioral changes OR compliance at induction OR gastric content volume OR gastric residual volume OR gastric emptying half life OR gastric antral area (antral cross sectional area) OR gastric motility OR gastric pH OR intragastric pressure OR accomodation/gastric tone OR (pre-/intra-op) hypoglycaemia or other metabolic effects metabolic state including surrogates (blood glucose, ketone bodies, BE, ph, lactate) OR stress level and surrogates (cortisole, ?) OR  impaired stress response OR postop insuline resistance OR need for inotropic support OR Subjective well being OR  PONV OR  Length of stay |
| 6 | Children with co-morbidities: gastro-intestinal (motility or other) disorders functional abdominal pain GER (reflux) renal failure cereberal palsy diverse neuropathies diabetes burn disease  pre-anaesthesia or any other clinical or simulated setting | Ingestion of clear fluid or solid food, any defined fasting regimen | | Healthy children, other co-morbidity |
| 7 | bed-ridden' children | Ingestion of clear fluid or solid food, any defined fasting regimen | | Healthy children |
| 8 | Children with or without co-morbidity,  pre-anaesthesia healthy volunteers  Adults | Ingestion of clear fluid or solid food, any defined fasting regimen  AND  (Administration of  opioids OR analgesisc OR benzodiazepines OR tranqulizers OR anesthetic agents) | | only observational OR  comparison with other drugs OR  NO drugs (in identical / similar ingestion & fasting situation as well as patient situation) |
| 9 | Premature Children, pre-anaesthesia or any other clinical or simulated setting | Ingestion of clear fluid or solid food, any defined fasting regimen | | Newborn children at term |
| 10 | Children of different age / age category, pre-anaesthesia or any other clinical or simulated setting | Ingestion of clear fluid or solid food, any defined fasting regimen | | Healthy children of other age category, adults |
| 11 | Children under stress | Ingestion of clear fluid or solid food, any defined fasting regimen | | Healthy children |
| **C** | **Impact of composition, amount and consistence of food / fluid in clinical or simulated fasting setting, other physiologic conditions** | **defined fluid and/or food ingestion with fasting duration** | | **alternative fluid / food ingestion with identical or similar fasting duration** |  |
| 12 | Children with or without co-morbidity,  pre-anaesthesia healthy volunteers | Ingestion of **fluid** with  - specific calory content - specific composition - carbonated/carbonic acid - different brands | |  | Incidence of pulmonary aspiration OR Symptoms / morbidity / treatment of pulmonary aspiration OR incidence of fasting time (> x hours)/effective fasting time for clear fluids, non-clear fluids, breast milk, formula milk, solids OR hunger OR thirst OR behavioral changes OR compliance at induction OR gastric content volume OR gastric residual volume OR gastric emptying half life OR gastric antral area (antral cross sectional area) OR gastric motility OR gastric pH OR intragastric pressure OR accomodation/gastric tone OR (pre-/intra-op) hypoglycaemia or other metabolic effects metabolic state including surrogates (blood glucose, ketone bodies, BE, ph, lactate) OR stress level and surrogates (cortisole, ?) OR  impaired stress response OR postop insuline resistance OR need for inotropic support OR Subjective well being OR  PONV OR  Length of stay |
| 13 | Children with or without co-morbidity,  pre-anaesthesia healthy volunteers | Ingestion of **food** with  - specific calory content - specific composition - different brands | | only observational OR  comparison with other foods that differ with respect to  - specific calory content - specific composition - different brands OR comparison with fluids |  |
| **D** | **Validity or reliability of surrogate parameters** | **defined fluid and/or food ingestion with fasting duration** | | **application of standard investigation in same patient or identical or similar fluid/ food ingestion and fasting duration** |  |
| 14 | Children, with or without co-morbidity, undergoing anaesthesia or healthy volunteers | Investigation of gastric contents with gastric US (gastric antral area) after Ingestion of clear fluid or solid food, any defined fasting regimen | | Endoscopy, MRI, scintigraphy, CT, Gastric tube aspiration | (Calculated) gastric content volume OR (calculated) gastric residual volume OR gastric emptying half life OR gastric antral area (antral cross sectional area) OR any any qualitative or quantitative gastric US outcome measure Correlation between above mentioned parameters OR OR validity/reliability/bias/precision of any of the above mentioned parameters |
| **E** | **Identification of at risk patients** | **preanesthetic diagnostic tool** | | **clinical decision making** |  |
| 15 | Children, undergoing urgent or emergency anaesthesia | Preoperative gastric Ultrasound | | Children undergoing urgent or emergency anaesthesia | Full stomach diagnosed by gastric US, change of airway management plan |
| 16 | Children, undergoing urgent or emergency anaesthesia | Preoperative gastric Ultrasound | | Children undergoing urgent or emergency anaesthesia | Empty stomach diagnosed by gastric US, change of airway management plan |
| F | **Impact of postoperative fasting duration in clinical setting** | **A defined postoperative fasting prescription** | | **alternative fasting prescription** |  |
| 17 | Children undergoing anaesthesia | Early access to postoperative fluid intake | | Postoperative nausea and vomiting OR opioid consumption OR lenght of PACU stay | Postoperative nausea and vomiting OR opioid consumption OR length of PACU stay |