

Online Supplemental Material

Search Strategies by Database

PubMed

- #1 "Pediatrics"[Mesh] OR "Hospitals, Pediatric"[Mesh] OR Pediatric[tw] OR pediatrics[tw] OR paediatric[tw] OR paediatrics[tw] OR "Infant"[Mesh] OR "Infant, Newborn"[Mesh] OR "Infant, Premature"[Mesh] OR "Child, Preschool"[Mesh] OR "Child"[Mesh] OR Infant[tw] OR infants[tw] OR newborn[tw] OR newborns[tw] OR premature[tw] OR preterm[tw] OR neonate[tw] OR neonatal[tw] OR toddler[tw] OR toddlers[tw] OR child[tw] OR children[tw] OR kid[tw] OR kids[tw] OR girl[tw] OR girls[tw] OR boy[tw] OR boys[tw]
- #2 Tracheostomy[tw] OR tracheostomies[tw] OR trach[tw] OR tracheotomy[tw] OR tracheotomy[tw] OR "surgical airway"[tw] OR (((ventilator[tw] OR ventilation[tw] OR ventilator[tw] OR airway[tw] OR "Ventilators, Mechanical"[Mesh] OR respirator[tw] OR respirators[tw] OR trachea[tw] OR tracheal[tw] OR fenestrated[tw]) AND (tube[tw] OR tubes[tw] OR stoma[tw] OR stomas[tw]))) NOT endotracheal[tw]) OR "Tracheostomy"[Mesh] OR "Surgical Stomas"[Mesh] OR ("Trachea"[Mesh] AND "Surgery"[Subheading])
- #3 bundle[tw] OR bundles[tw] OR assessment[tw] OR assessments[tw] OR assess[tw] OR assessing[tw] OR assessed[tw] OR clean[tw] OR cleaning[tw] OR cleaned[tw] OR "skin integrity"[tw] OR "skin barrier"[tw] OR "skin barriers"[tw] OR "oral care"[tw] OR "oral hygiene"[tw] OR ties[tw] OR collar[tw] OR collars[tw] OR "securement device"[tw] OR "securement devices"[tw] OR feed[tw] OR fed[tw] OR feeding[tw] OR diet[tw] OR diets[tw] OR nutrition[tw] OR "Patient Care Bundles"[Mesh] OR "Oral Hygiene"[Mesh:NoExp] OR "Enteral Nutrition"[Mesh] OR "Diet"[Mesh] OR heated[tw] OR heat[tw] OR heating[tw] OR humidified[tw] OR humidity[tw] OR humidification[tw] OR humidifier[tw] OR humidifiers[tw] OR "heat moisture exchanger"[tw] OR "Humidifiers"[Mesh] OR "Bennett Cascade"[tw] OR "non-heated"[tw] OR nonheated[tw] OR cuff[tw] OR cuffed[tw] OR uncuffed[tw] OR "air-filled"[tw] OR "water filled"[tw] OR foam[tw] OR ((tube[tw] OR tubes[tw] OR device[tw] OR devices[tw] OR cannula[tw] OR tracheostomy[tw]) AND (clean[tw] OR cleaning[tw] OR cleaned[tw] OR disinfection[tw] OR disinfected[tw] OR disinfecting[tw] OR soap[tw] OR "acetic acid"[tw] OR chemical[tw] OR clear[tw] OR clearing[tw] OR cleared[tw])) OR ((Time[tw] OR timing[tw] OR frequency[tw] OR first[tw] OR initial[tw]) AND ("tube change"[tw] OR "tube changes"[tw] OR "tube management"[tw] OR "tube replacement"[tw] OR "tube placement"[tw] OR "device change"[tw] OR "device changes"[tw] OR "device management"[tw] OR "device replacement"[tw] OR "device placement"[tw])) OR "communication device"[tw] OR "Muir Valve"[tw] OR "speaking valve"[tw] OR "communication board"[tw] OR phonation[tw] OR (communication[tw] AND (instrumentation[tw] OR tube[tw] OR tubes[tw])) OR "Communication Aids for Disabled"[Mesh] OR "Phonation"[Mesh] OR "discharge plan"[tw] OR "discharge planning"[tw] OR ("medically ready"[tw] AND discharge[tw]) OR "plan of care"[tw] OR "hand-off"[tw] OR "hand-offs"[tw] OR handover[tw] OR handovers[tw] OR ((education[tw] OR

educate[tw] OR "Education"[Subheading] OR "Patient Education as Topic"[Mesh]) AND (patient[tw] OR patients[tw] OR "Patients"[Mesh] OR family[tw] OR families[tw] OR "Family"[Mesh] OR caregiver[tw] OR "care giver"[tw] OR caregivers[tw] OR "care givers"[tw] OR "Caregivers"[Mesh])) OR "transition to home"[tw] OR "care coordinator"[tw] OR "case manager"[tw] OR "case managers" OR "care navigator" OR "care navigators" OR "transition coach" OR "transition coaches" OR "care manager" OR "care managers" OR "transition navigator" OR "transition navigators" OR "transition care manager" OR "transition care managers" OR "patient navigation"[tw] OR "care transition"[tw] OR "care transitions"[tw] OR "case management"[tw] OR "care coordination"[tw] OR "Continuity of Patient Care"[Mesh] OR "Patient Discharge"[Mesh] OR "Patient Transfer"[Mesh] OR "Case Management"[Mesh] OR "Patient Handoff"[Mesh] OR "Case Managers"[Mesh] OR "Patient Navigation"[Mesh]

#4 "ventilator associated event"[tw] OR "ventilator associated pneumonia"[tw] OR VAE[tw] OR VAP[tw] OR tracheitis[tw] OR revisitation[tw] OR readmission[tw] OR rehospitalization[tw] OR rehospitalisation[tw] OR complications[tw] OR complication[tw] OR "quality of life"[tw] OR "developmental milestones"[tw] OR "development milestones"[tw] OR "developmental milestone"[tw] OR "development milestone"[tw] OR "Pneumonia, Ventilator-Associated"[Mesh] OR "Tracheitis"[Mesh] OR "Patient Readmission"[Mesh] OR "Complications"[Subheading] OR "Postoperative Complications"[Mesh:NoExp] OR "Quality of Life"[Mesh] OR "critical incident"[tw] OR "critical incidents"[tw] OR "critical event"[tw] OR "critical events"[tw] OR death[tw] OR deaths[tw] OR fatality[tw] OR fatalities[tw] OR mortality[tw] OR mortalities[tw] OR "mortality" [Subheading] OR "Mortality"[Mesh] OR dislodge[tw] OR dislodged[tw] OR dislodgement[tw] OR dislodging[tw] OR dislodges[tw] OR obstruct[tw] OR obstruction[tw] OR obstructed[tw] OR obstructing[tw] OR obstructs[tw] OR obstructions[tw] OR (emergency[tw] AND "tube change"[tw]) OR CPR[tw] OR "Cardiopulmonary Resuscitation"[Mesh] OR "cardiopulmonary resuscitation"[tw] OR "cardio-pulmonary resuscitation"[tw] OR "life support"[tw] OR "code blue"[tw] OR Cost[tw] OR costs[tw] OR economic[tw] OR economics[tw] OR financial[tw] OR financing[tw] OR financed[tw] OR finance[tw] OR "Costs and Cost Analysis"[Mesh] OR price[tw] OR pricing[tw] OR "length of stay"[tw] OR "length of hospital stay"[tw] OR LOS[tw] OR "Length of Stay"[Mesh] OR Decannulation[tw] OR decannulated[tw] OR decannulate[tw] OR decannulating[tw] OR "Airway Extubation"[Mesh] OR extubation[tw] OR extubations[tw] OR extubate[tw] OR extubating[tw] OR extubated[tw] OR Injury[tw] OR injuries[tw] OR "pressure ulcer"[tw] OR "pressure ulcers"[tw] OR granuloma[tw] OR "granulation tissue"[tw] OR tracheomalasia[tw] OR "tracheal stenosis"[tw] OR "tracheal dilation"[tw] OR "Pressure Ulcer"[Mesh] OR "Granuloma"[Mesh] OR "Granulation Tissue"[Mesh] OR "Tracheal Stenosis"[Mesh]

#5 #1 AND #2 AND #3 AND #4

#6 #5 NOT ("Animals"[Mesh] NOT "Humans"[Mesh])

#7 #6 NOT (Comment[sb] OR Editorial[ptyp] OR Interview[ptyp] OR Letter[ptyp] OR News[ptyp] OR Newspaper Article[ptyp] OR Review[ptyp])

CINAHL via EBSCOhost

- S1 TI(Pediatric OR pediatrics OR paediatric OR paediatrics OR Infant OR infants OR newborn OR newborns OR premature OR preterm OR neonate OR neonatal OR toddler OR toddlers OR child OR children OR kid OR kids OR girl OR girls OR boy OR boys) OR AB(Pediatric OR pediatrics OR paediatric OR paediatrics OR Infant OR infants OR newborn OR newborns OR premature OR preterm OR neonate OR neonatal OR toddler OR toddlers OR child OR children OR kid OR kids OR girl OR girls OR boy OR boys) OR MH "Pediatrics" OR MH "Hospitals, Pediatric" OR MH "Infant+" OR MH "Infant, Newborn+" OR MH "Infant, Premature" OR MH "Child, Preschool" OR MH "Child+"
- S2 TI(Tracheostomy OR tracheostomies OR trach OR tracheotomy OR tracheotomy OR "surgical airway") OR AB(Tracheostomy OR tracheostomies OR trach OR tracheotomy OR tracheotomy OR "surgical airway") OR ((TI(ventilator OR ventilation OR ventilator OR airway OR respirator OR respirators OR trachea OR tracheal OR fenestrated) OR AB(ventilator OR ventilation OR ventilator OR airway OR respirator OR respirators OR trachea OR tracheal OR fenestrated) OR MH "Ventilators, Mechanical") AND (TI(tube OR tubes OR stoma OR stomas) OR AB(tube OR tubes OR stoma OR stomas))) OR MH "Tracheostomy" OR (MH "Trachea" AND MW "SU")
- S3 TI(bundle OR bundles OR assessment OR assessments OR assess OR assessing OR assessed OR clean OR cleaning OR cleaned OR "skin integrity" OR "skin barrier" OR "skin barriers" OR "oral care" OR "oral hygiene" OR ties OR collar OR collars OR "securement device" OR "securement devices" OR feed OR fed OR feeding OR diet OR diets OR nutrition OR heated OR heat OR heating OR humidified OR humidity OR humidification OR humidifier OR humidifiers OR "heat moisture exchanger" OR "Bennett Cascade" OR "non-heated" OR nonheated OR cuff OR cuffed OR uncuffed OR "air-filled" OR "water filled" OR foam OR ((tube OR tubes OR device OR devices OR cannula OR tracheostomy) AND (clean OR cleaning OR cleaned OR disinfection OR disinfected OR disinfecting OR soap OR "acetic acid" OR chemical OR clear OR clearing OR cleared)) OR ((Time OR timing OR frequency OR first OR initial) AND ("tube change" OR "tube changes" OR "tube management" OR "tube replacement" OR "tube placement" OR "device change" OR "device changes" OR "device management" OR "device replacement" OR "device placement")) OR "communication device" OR "Muir Valve" OR "speaking valve" OR "communication board" OR phonation OR (communication AND (instrumentation OR tube OR tubes)) OR "discharge plan" OR "discharge planning" OR ("medically ready" AND discharge) OR "plan of care" OR "hand-off" OR "hand-offs" OR handover OR handovers OR "transition to home" OR "care coordinator" OR "case manager" OR "case managers" OR "care navigator" OR "care navigators" OR "transition coach" OR "transition coaches" OR "care manager" OR "care managers" OR "transition navigator" OR "transition navigators" OR "transition care manager" OR "transition care managers" OR "patient navigation" OR "care transition" OR "care

transitions" OR "case management" OR "care coordination") OR AB(bundle OR bundles OR assessment OR assessments OR assess OR assessing OR assessed OR clean OR cleaning OR cleaned OR "skin integrity" OR "skin barrier" OR "skin barriers" OR "oral care" OR "oral hygiene" OR ties OR collar OR collars OR "securement device" OR "securement devices" OR feed OR fed OR feeding OR diet OR diets OR nutrition OR heated OR heat OR heating OR humidified OR humidity OR humidification OR humidifier OR humidifiers OR "heat moisture exchanger" OR "Bennett Cascade" OR "non-heated" OR nonheated OR cuff OR cuffed OR uncuffed OR "air-filled" OR "water filled" OR foam OR ((tube OR tubes OR device OR devices OR cannula OR tracheostomy) AND (clean OR cleaning OR cleaned OR disinfection OR disinfected OR disinfecting OR soap OR "acetic acid" OR chemical OR clear OR clearing OR cleared)) OR ((Time OR timing OR frequency OR first OR initial) AND ("tube change" OR "tube changes" OR "tube management" OR "tube replacement" OR "tube placement" OR "device change" OR "device changes" OR "device management" OR "device replacement" OR "device placement")) OR "communication device" OR "Muir Valve" OR "speaking valve" OR "communication board" OR phonation OR (communication AND (instrumentation OR tube OR tubes)) OR "discharge plan" OR "discharge planning" OR ("medically ready" AND discharge) OR "plan of care" OR "hand-off" OR "hand-offs" OR handover OR handovers OR "transition to home" OR "care coordinator" OR "case manager" OR "case managers" OR "care navigator" OR "care navigators" OR "transition coach" OR "transition coaches" OR "care manager" OR "care managers" OR "transition navigator" OR "transition navigators" OR "transition care manager" OR "transition care managers" OR "patient navigation" OR "care transition" OR "care transitions" OR "case management" OR "care coordination") OR ((TI(education OR educate) OR AB(education OR educate) OR MW "ED" OR MH "Patient Education+") AND (TI(patient OR patients OR family OR families OR caregiver OR "care giver" OR caregivers OR "care givers") OR AB(patient OR patients OR family OR families OR caregiver OR "care giver" OR caregivers OR "care givers") OR MH "Patients+" OR MH "Family+" OR MH "Caregivers")) OR MH "Continuity of Patient Care+" OR MH "Patient Discharge+" OR MH "Transfer, Discharge" OR MH "Case Management" OR MH "Hand Off (Patient Safety)+" OR MH "Case Managers" OR MH "Patient Navigation" OR MH "Patient Care Plans+" OR MH "Enteral Nutrition" OR MH "Diet+" OR MH "Nebulizers and Vaporizers" OR MH "Communication Aids for Disabled+" OR MH "Phonation+"

S4 TI("ventilator associated event" OR "ventilator associated pneumonia" OR VAE OR VAP OR tracheitis OR revisitation OR readmission OR rehospitalization OR rehospitalisation OR complications OR complication OR "quality of life" OR "developmental milestones" OR "development milestones" OR "developmental milestone" OR "development milestone" OR "critical incident" OR "critical incidents" OR "critical event" OR "critical events" OR death OR deaths OR fatality OR fatalities OR mortality OR mortalities OR dislodge OR dislodged OR dislodgement OR dislodging OR dislodges OR obstruct OR obstruction OR obstructed OR obstructing OR obstructs OR obstructions OR (emergency AND "tube change") OR CPR OR "cardiopulmonary resuscitation" OR "cardio-pulmonary resuscitation" OR "life support" OR "code blue" OR Cost OR costs OR economic OR economics OR financial OR financing OR financed OR finance OR price OR pricing OR "length of stay" OR "length of hospital stay" OR LOS OR

Decannulation OR decannulated OR decannulate OR decannulating OR extubation OR extubations OR extubate OR extubating OR extubated OR Injury OR injuries OR "pressure ulcer" OR "pressure ulcers" OR granuloma OR "granulation tissue" OR tracheomalasia OR "tracheal stenosis" OR "tracheal dilation") OR AB("ventilator associated event" OR "ventilator associated pneumonia" OR VAE OR VAP OR tracheitis OR revisitation OR readmission OR rehospitalization OR rehospitalisation OR complications OR complication OR "quality of life" OR "developmental milestones" OR "development milestones" OR "developmental milestone" OR "development milestone" OR "critical incident" OR "critical incidents" OR "critical event" OR "critical events" OR death OR deaths OR fatality OR fatalities OR mortality OR mortalities OR dislodge OR dislodged OR dislodgement OR dislodging OR dislodges OR obstruct OR obstruction OR obstructed OR obstructing OR obstructs OR obstructions OR (emergency AND "tube change") OR CPR OR "cardiopulmonary resuscitation" OR "cardio-pulmonary resuscitation" OR "life support" OR "code blue" OR Cost OR costs OR economic OR economics OR financial OR financing OR financed OR finance OR price OR pricing OR "length of stay" OR "length of hospital stay" OR LOS OR Decannulation OR decannulated OR decannulate OR decannulating OR extubation OR extubations OR extubate OR extubating OR extubated OR Injury OR injuries OR "pressure ulcer" OR "pressure ulcers" OR granuloma OR "granulation tissue" OR tracheomalasia OR "tracheal stenosis" OR "tracheal dilation") OR MH "Pressure Ulcer+" OR MH "Granuloma+" OR MH "Granulation Tissue+" OR MH "Pneumonia, Ventilator-Associated" OR MH "Readmission" OR MW "CO" OR MH "Postoperative Complications" OR MH "Quality of Life+" OR OR MW "MO" OR MH "Mortality" OR MH "Resuscitation, Cardiopulmonary+" OR MH "Costs and Cost Analysis+" OR MH "Length of Stay"

- S5 S1 AND S2 AND S3 AND S4
- S6 S5 NOT (MH "Animals+" NOT MH "Human")
- S7 S6 NOT PT ("Commentary" OR "Editorial" OR "Interview" OR "Letter" OR "Review")
- S8 S7 AND LA English

Scopus via Scopus.com/

- #1 TITLE-ABS(Pediatric OR pediatrics OR paediatric OR paediatrics OR Infant OR infants OR newborn OR newborns OR premature OR preterm OR neonate OR neonatal OR toddler OR toddlers OR child OR children OR kid OR kids OR girl OR girls OR boy OR boys)
- #2 TITLE-ABS(Tracheostomy OR tracheostomies OR trach OR tracheotomy OR tracheotomy OR "surgical airway" OR ((ventilator OR ventilation OR ventilator OR airway OR respirator OR respirators OR trachea OR tracheal OR fenestrated) AND (tube OR tubes OR stoma OR stomas)))
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barriers" OR "oral care" OR "oral hygiene" OR ties OR collar OR collars OR "securement device" OR "securement devices" OR feed OR fed OR feeding OR diet OR diets OR nutrition OR heated OR heat OR heating OR humidified OR humidity OR humidification OR humidifier OR humidifiers OR "heat moisture exchanger" OR "Bennett Cascade" OR "non-heated" OR nonheated OR cuff OR cuffed OR uncuffed OR "air-filled" OR "water filled" OR foam OR ((tube OR tubes OR device OR devices OR cannula OR tracheostomy) AND (clean OR cleaning OR cleaned OR disinfection OR disinfected OR disinfecting OR soap OR "acetic acid" OR chemical OR clear OR clearing OR cleared)) OR ((Time OR timing OR frequency OR first OR initial) AND ("tube change" OR "tube changes" OR "tube management" OR "tube replacement" OR "tube placement" OR "device change" OR "device changes" OR "device management" OR "device replacement" OR "device placement")) OR "communication device" OR "Muir Valve" OR "speaking valve" OR "communication board" OR phonation OR (communication AND (instrumentation OR tube OR tubes)) OR "discharge plan" OR "discharge planning" OR ("medically ready" AND discharge) OR "plan of care" OR "hand-off" OR "hand-offs" OR handover OR handovers OR "transition to home" OR "care coordinator" OR "case manager" OR "case managers" OR "care navigator" OR "care navigators" OR "transition coach" OR "transition coaches" OR "care manager" OR "care managers" OR "transition navigator" OR "transition navigators" OR "transition care manager" OR "transition care managers" OR "patient navigation" OR "care transition" OR "care transitions" OR "case management" OR "care coordination" OR ((education OR educate) AND (patient OR patients OR family OR families OR caregiver OR "care giver" OR caregivers OR "care givers")))

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#5 #1 AND #2 AND #3 AND #4

#6 #5 AND (EXCLUDE (DOCTYPE , "ed") OR EXCLUDE (DOCTYPE , "le") OR EXCLUDE (DOCTYPE , "re"))

#7 #6 AND (LIMIT-TO (LANGUAGE , "English")