# Evidence Search Service Results of your search request

## Covid infection causing mediastinitis and oesophageal perforation

**ID of request:** 28991  
**Date of request:** 23rd April, 2021  
**Date of completion:** 7th May, 2021

If you would like to request any articles or any further help, please contact:  Lucy Sinclair at [lucy.sinclair1@nhs.net](mailto:lucy.sinclair1@nhs.net)

Please acknowledge this work in any resulting paper or presentation as: Evidence search: Covid infection causing mediastinitis and oesophageal perforation. Lucy Sinclair. ( 7th May, 2021). BRIGHTON, UK: Brighton and Sussex Library and Knowledge Service.

**Sources searched**  
NICE Evidence Search (0)

**Date range used** (5 years, 10 years): 2019-current   
**Limits used** (gender, article/study type, etc.): no limits applied   
**Search terms and notes** (full search strategy for database searches below):

**Search Strategies**

**EUROPE PMC:** (("COVID-19" or COVID19 or 2019nCoV or "Corona Virus" or Coronavirus or "CoV 2" or CoV2 or COVID or nCoV or SARS2 or SARSCoV or "SARS-CoV") AND ((mediastinitis OR "oesophageal perforation" OR "esophageal perforation"))) AND (SRC:PPR)

**Google Scholar:** (("COVID-19" or COVID 19 or 2019 nCoV or "Corona Virus" or Coronavirus or "CoV 2" or CoV2 or COVID or nCoV or SARS 2 or SARS CoV and "SARS-CoV") AND ((mediastinitis OR "Esophageal Perforation" OR "oesophageal perforation")))

**TRIP:** (Coronavirus OR COVID-19 OR Coronavirus infection)(mediastinitis OR Esophageal Perforation OR oesophageal perforation) from:2019

**Cochrane Library:**

#1 MeSH descriptor: [Coronavirus] explode all trees 264  
#2 MeSH descriptor: [Coronavirus Infections] explode all trees 828  
#3 ((corona\* or corono\*) near/1 (virus\* or viral\* or virinae\*)):ti,ab,kw 219  
#4 (coronavirus\* or coronovirus\* or coronavirinae\* or CoV):ti,ab,kw 3122  
#5 ("2019 nCoV" or 2019nCoV\* or "19 nCoV" or 19nCoV\* or nCoV2019\* or "nCoV 2019" or nCoV19\* or "nCoV 19" or "COVID 19" or COVID19\* or "COVID 2019" or COVID2019\* or "HCoV 19" or HCoV19\* or "HCoV 2019" or HCoV2019\* or "2019 novel" or Ncov\* or "n cov" or "SARS CoV 2" or "SARSCoV 2" or "SARSCoV2" or "SARS CoV2" or SARSCov19\* or "SARS Cov19" or "SARSCov 19" or "SARS Cov 19" or SARSCov2019\* or "SARS Cov2019" or "SARSCov 2019" or "SARS Cov 2019" or SARS2\* or "SARS 2" or SARScoronavirus2\* or "SARS coronavirus 2" or "SARScoronavirus 2" or "SARS coronavirus2" or SARScoronovirus2\* or "SARS coronovirus 2" or "SARScoronovirus 2" or "SARS coronovirus2" or covid):ti,ab,kw 5139  
#6 (respiratory\* near/2 (symptom\* or disease\* or illness\* or condition\*) near/5 (Wuhan\* or Hubei\* or China\* or Chinese\* or Huanan\*)):ti,ab,kw 30  
#7 (("seafood market" or "seafood markets" or "food market" or "food markets") near/10 (Wuhan\* or Hubei\* or China\* or Chinese\* or Huanan\*)):ti,ab,kw 5  
#8 (pneumonia\* near/3 (Wuhan\* or Hubei\* or China\* or Chinese\* or Huanan\*)):ti,ab,kw 44  
#9 ((outbreak\* or wildlife\* or pandemic\* or epidemic\*) near/1 (Wuhan\* or Hubei\* or China\* or Chinese\* or Huanan\*)):ti,ab,kw 5  
#10 ("severe acute respiratory syndrome" or "severe acute respiratory syndromes"):ti,ab,kw 860  
#11 {or #1-#10} 5503  
#12 MeSH descriptor: [Mediastinitis] this term only 27  
#13 mediastinitis:ti,ab,kw 187  
#14 (mediastin\* NEAR/2 (infect\* OR inflammation)):ti,ab,kw 42  
#15 "fibrous mediastinitis":ti,ab,kw 1  
#16 {or #12-#15} 197  
#17 MeSH descriptor: [Esophageal Perforation] explode all trees 19  
#18 ((Oesophag\* OR esophag\*) NEAR/3 (tear OR rupture OR perforat\*)):ti,ab,kw 201  
#19 (Boerhaave\* NEAR/2 "syndrome"):ti,ab,kw 2  
#20 {or #17-#19} 211  
#21 #16 OR #20 404  
#22 #11 AND #21 0

Relevant natural language and controlled vocabulary terms were identified selected and combined. Search strategies were adapted to the search facilities of the medical information resources used. Medline and EMBASE searched via Ovid on 7th May 2021. Thesaurus terms were adapted for each database. Results were exported and de-duplicated in EndNote. Deduplicated results provided in a separate ris file. Full search strategy below.

**Results pre-deduplication:**

Medline: 8

EMBASE: 13

Cochrane Library: 0

Google Scholar: 2

EUROPE PMC: 5

TRIP: 30

**Results after deduplication:**

54

For more information about the resources please go to: <https://www.bsuh.nhs.uk/library/>.

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46. [Percutaneous dilatational tracheostomy for saturating influx of COVID-19 patients: Experience of military ENT physicians deployed in Mulhouse, France](#Research923075)
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49. [SARS-CoV-2 pneumonia with subcutaneous emphysema, mediastinal emphysema, and pneumothorax: A case report](#Research923080)
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53. [The Use of Bronchoscopy During the Coronavirus Disease 2019 Pandemic: CHEST/AABIP Guideline and Expert Panel Report](#Research923100)
54. [SECCIÓN IV: ENFOQUE QUIRÚRGICO](#Research923055)

### [B. Search History](#SearchHistory)

## A. Original Research

1. **2021 ACC/AHA Key Data Elements and Definitions for Heart Failure: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Data Standards (Writing Committee to Develop Clinical Data Standards for Heart Failure)**  
   Anon. American Heart Association 2021;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=09784490628bf85587b904dfa44bf02f)

1. **2021 Southern Medical Research Conference**  
   Anonymous Journal of Investigative Medicine 2021;69:No page numbers.

The proceedings contain 637 papers. The topics discussed include: recalcitrant iron deficiency anemia and neuropathy as a facade of copper deficiency; rapidly fatal autoimmune hemolytic anemia secondary to COVID-19; deep vein thrombosis without laboratory abnormalities as presenting symptom for polycythemia vera; a curious case of caisson disease; a pain in the neck: an unusual presentation of a retropharyngeal abscess complicated by mediastinitis and internal jugular vein thrombosis; myocardial infarction in a neonate exposed to severe perinatal asphyxia; hemolysis in a preterm newborn born to a mother with history of SARS-COV-2 infection; utility of ECMO in neonates with hypoxic-ischemic encephalopathy receiving therapeutic hypothermia: a case series; can bronchoscopy be avoided in the diagnosis of congenital bronchobiliary fistula?; pulmonary hemorrhage: an unusual life-threating presentation of factor ix deficiency in a monozygotic-diamniotic premature twin neonate; and rare presentation of intestinal perforation related to an omphalomesenteric duct in a preterm infant.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=bfc120050d3198343ab2693f8b25e5d6)

1. **An exceptional complication of transesophageal ultrasound in a patient with Coronavirus disease**  
   Bahloul Amine Clinical case reports 2021;9:2336-2339.

EP after TEE represents a medico-surgical emergency. Given the high rate of asymptomatic patients with COVID 19, the risk of contamination and the frailty of esophageal tissues, we should check coronavirus infection in every patient before TEE. Copyright © 2021 The Authors. Clinical Case Reports published by John Wiley & Sons Ltd.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=99ff5edcb65ba2a838c1688e30fad259)

1. **Appropriate Use Criteria: Imaging of the Chest**  
   Anon. AIM Specialty Health 2021;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=74b7d2018c767167ce8fa4539521ac0d)

1. **Clinical guide to surgical prioritisation**  
   Anon. NHS England 2021;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=0a45bfa2d311949848b2df80e098eb8c)

1. **Diagnostic Accuracy of North America Expert Consensus Statement on Reporting CT Findings in Patients Suspected of Having COVID-19 Infection: An Italian Single-Center Experience**  
   Anon. EvidenceUpdates 2021;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=0a65627dbe3fc930413d9d6b40987ff3)

1. **Disparities and Barriers to Pediatric Cancer Survivorship Care**  
   Anon. Effective Health Care Program (AHRQ) 2021;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=564af6bcd273553234ff46a74730f383)

1. **Expansion of Cytotoxic CD4+ T Cells in the Lungs in Severe COVID-19**  
   Kaneko Naoki 2021;:No page numbers.

The contributions of T cells infiltrating the lungs to SARS-CoV-2 clearance and disease progression are poorly understood.&amp;amp;nbsp; Although studies of CD8+ T cells in bronchoalveolar lavage and blood have suggested that these cells are exhausted in severe COVID-19, CD4+ T cells have not been systematically interrogated within the lung parenchyma. We establish here that cytotoxic CD4+ T cells (CD4+CTLs) are prominently expanded in the COVID-19 lung infiltrate. CD4+CTL numbers in the lung increase with disease severity and progression is accompanied by widespread HLA-DR expression on lung epithelial and endothelial cells, increased apoptosis of epithelial cells and tissue remodeling. Based on quantitative evidence for re-activation in the lung milieu, CD4+ CTLs are as likely to drive viral clearance as CD8+ T cells and may also be contributors to lung inflammation and eventually to fibrosis in severe COVID-19. Funding: This work was supported by NIH U19 AI110495 to SP. Funding for these studies from the Massachusetts Consortium of Pathogen Readiness, the Mark and Lisa Schwartz Foundation and Enid Schwartz is also acknowledged. Declaration of Interest: None to declare. Ethical Approval: This study was performed with the approval of the Institutional Review Boards at the Massachusetts General Hospital and the Brigham and Women&amp;rsquo;s Hospital.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=f2542ad443dd3dced6949690176baa61)

1. **Percutaneous tracheostomy for long-term ventilated COVID-19-patients: rationale and first clinical-safe for all-experience**  
   Jonckheere Wim Anaesthesiology Intensive Therapy 2021;52:366-372.

Background: COVID-19 infection has resulted in thousands of critically ill patients admitted to ICUs and treated with mechanical ventilation. Percutaneous tracheostomy is a well-known technique utilised as a strategy to wean critically ill patients from mechanical ventilation. Worldwide differences exist in terms of methods, operators, and settings, and questions remain regarding timing and indications. If tracheostomy is to be performed in COVID-19 patients, a safe environment is needed for optimal care. Method(s): We present a guidewire dilating forceps tracheostomy procedure in COVID-19 patients that was optimised including apnoea-moments, protective clothing, checklists, and clear protocols. We performed a retrospective analysis of the outcome after tracheostomy in COVID-19 patients between March 2020 and May 2020. Result(s): The follow-up of the first 16 patients, median age 62 years, revealed a median intubation time until tracheostomy of 18 days and median cannulation time of 20 days. The overall perioperative complication rate and complication rate while cannulated was 19%, mainly superficial bleeding. None of the healthcare providers involved in performing the procedure developed any symptoms of the disease. Conclusion(s): This COVID-19-centred strategy based on flexibility, preparation, and cooperation between healthcare providers with different backgrounds facilitated percutaneous tracheostomy in COVID-19 patients without an increase in the overall complication rate or evidence of risk to healthcare providers. Our findings provide initial evidence that tracheostomy can be performed safely as a standard of care for COVID-19 patients requiring prolonged mechanical ventilation as was standard practice in ICU patients prior to the COVID-19 pandemic to promote ventilator weaning and patient recovery.Copyright © 2020 Via Medica. All rights reserved.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=45c441f0da08a1f00008f08ca7b76381)

1. **Pneumoperitoneum in a COVID-19 Patient Due to the Macklin Effect**  
   Vidrio Duarte Ramon Cureus 2021;13:e13200.

A 63-year-old male with coronavirus disease 2019 (COVID-19) pneumonia presented to the emergency department, supplementary oxygen is delivered via nasal cannula, and invasive ventilation was not needed; there was significant pneumoperitoneum on radiologic control. After a meticulous examination of the thoracic tomography, there were some linear air collections adjacent to the bronchovascular sheaths, indicative of the Macklin effect, without abdominal alterations, and the patient remained stable; therefore, we did not perform a surgical procedure, and the pneumoperitoneum reabsorbed spontaneously on radiologic control. The pulmonary origin of pneumoperitoneum is unusual and is associated with mechanical ventilation and alveolar leak; the air leak with subsequent dissection into other anatomical spaces is called the Macklin effect. It is essential to have this mechanism in mind because most of these patients respond well to conservative treatment. When studying primary pneumoperitoneum, the cause should be studied carefully to discard visceral perforation, tracheal or esophageal rupture. Copyright © 2021, Vidrio Duarte et al.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=eaa83620166354c7507c8a4dd3b3b415)

1. **Research progress and challenges to coronavirus vaccine development**  
   Zhou Peiwen Journal of Medical Virology 2021;93:741-754.

1. **[Treatment of postoperative anterior mediastinitis, sternal osteomyelitis in a patient with a novel coronavirus infection]**  
   Kabanov M. Yu Lechenie posleoperatsionnogo perednego mediastinita, osteomielita grudiny u patsientki s novoi koronavirusnoi infektsiei (COVID-19). 2021;:53-57.

The incidence of mediastinitis after median sternotomy makes up 1-3%. This complication results prolonged hospital-stay, significant increase in treatment cost and high mortality (up to 75%). Severe COVID-19 pneumonia is often manifested by coughing, that impairs sternum stability after osteosynthesis. Moreover, concomitant leukopenia increases the risk of mediastinitis. Viral pneumonia and mediastinitis are complicated by respiratory failure and mutually potentiate the negative effect. Negative pressure wound therapy (NPWT) with combined antibiotic therapy ensures a favorable outcome even in patients with postoperative mediastinitis and osteomyelitis combined with viral pneumonia.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=fc64ded5214b733a2774d4788d2df604)

1. **"COVIDphobia" influences early otolaryngology diagnoses**  
   Sideris G. European Annals of Otorhinolaryngology, Head and Neck Diseases 2020;137:353-354.

[http://www.sciencedirect.com/science/journal/18797296 this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=1ee2f6c757e235470652f467713fa0dd)

1. **ACS Guidelines for Triage and Management of Elective Cancer Surgery Cases During the Acute and Recovery Phases of Coronavirus Disease 2019 (COVID-19) Pandemic**  
   Anon. American College of Surgeons 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=b4809c7ab9183e900172c2a866fcc5f5)

1. **An evidence-based systematic review on emerging therapeutic and preventive strategies to treat novel coronavirus (SARS-CoV-2) during an outbreak scenario**  
   Anon. Journal of Basic and Clinical Physiology and Pharmacology 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=002c5aded20c62a5918398ede442388a)

1. **An exceptional complication of transesophageal ultrasound in a patient with Coronavirus disease**  
   Bahloul Amine 2020;:No page numbers.

We presented an unusual case of iatrogenic esophageal perforation(EP) following trans-esophageal echocardiography(TEE) in a patient with COVID-19.Force applied during the intubation on an inflammatory and fragile wall caused by COVID-19 probably represented the underlying condition that contributed to the EP.Early diagnosis and urgent treatment are essential for a favorable prognosis

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=5c7029f0a4693c255edbd8f6416afe2f)

1. **Challenges in the management of ENT foreign bodies during COVID-19 Pandemic - Experience at a tertiary care centre**  
   Bellad Shama 2020;:No page numbers.

The novel coronavirus disease 2019 (COVID-19) pandemic has put unprecedented challenges on the medical community. ENT surgical procedures are associated with very high risk of transmission of the virus due to aerosol generation. Management of ENT emergencies due to foreign bodies during ongoing COVID-19 was challenging. This is a prospective study done in our tertiary care centre from March 2020 to June 2020, during COVID-19 pandemic, where patients were referred from primary health facility after unsuccessful attempt. The challenges encountered in the management of these cases, precautions taken and protocols followed are being discussed. The foreign bodies should be removed by trained personnel using Personal Protective Equipment taking all precautions to minimize aerosol generating procedures and limit the length of these procedures whenever possible. Additionally, the use of povidone-iodine in varying concentrations is emphasized in reducing the viral load in the aerodigestive tract, thus proving to be safe to both the patients and the treating doctors.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=9fa6c8fb1c87ba4a9beef245c8d269c0)

1. **Chest CT accuracy in diagnosing COVID-19 during the peak of the Italian epidemic: A retrospective correlation with RT-PCR testing and analysis of discordant cases**  
   Anon. EvidenceUpdates 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=195acc4c37a09fc39f492141be417f8e)

1. **Chest CT findings of COVID-19-infected patients, are there differences between pediatric and adult patients? A systematic review**  
   Anon. Egyptian Journal of Radiology and Nuclear Medicine 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=60d48d8eada33a1ee1a05c90d39ca614)

1. **Chest imaging**  
   Anon. AIM Specialty Health 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=0b94e4897fed3d6de0457af06196a1c8)

1. **Clinical care of severe acute respiratory infections – Tool kit**  
   Anon. WHO Coronavirus disease (COVID-19) Pandemic 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=73a86b07282518d59d2cd48ec298b026)

1. **Clinical Features, Diagnosis, and Treatment of COVID-19 in Hospitalized Patients: A Systematic Review of Case Reports and Case Series**  
   Anon. Frontiers in medicine 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=10023213195a93c5a41a061da242d72f)

1. **Clinical Perspective on 2019 Novel Coronavirus Pneumonia: A Systematic Review of Published Case Reports**  
   Anon. Cureus 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=c8de4c38e07d1e89dc233d16dd498467)

1. **Commentary: Compliance with the American Association for Thoracic Surgery guidelines will prevent sternal wound infections and minimize postoperative complications in cardiac surgery patients during the COVID-19 pandemic**  
   Lazar Harold L. Journal of Thoracic and Cardiovascular Surgery 2020;160:e44-e48.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=5d84c0937f299166bfc74644b352cde5)

1. **Comparison of the computed tomography findings in COVID-19 and other viral pneumonia in immunocompetent adults: a systematic review and meta-analysis**  
   Anon. European radiology 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=8fc7246f6dfe176197a41c7b70ba69b9)

1. **Computed Tomography (CT) Prioritization**  
   Anon. Clinical Practice Guidelines and Protocols in British Columbia 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=7b819eddf865d1c7a58c64b0f490c932)

1. **Coronavirus disease 2019 (COVID-19) in children: a systematic review of imaging findings**  
   Anon. Pediatric Radiology 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=4877fc617c3a0b218688ffbca3aee53b)

1. **COVID-19 Outbreak and Hospital Air Quality: A Systematic Review of Evidence on Air Filtration and Recirculation**  
   Anon. Environmental science & technology 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=1d48226e25271bfc0b409a86889ce403)

1. **Covid-19: Clinical guide for the management of patients requiring endoscopy during the coronavirus pandemic**  
   Anon. NHS England 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=c521ed59a6db590ad1c33fcac57dbc11)

1. **CT in coronavirus disease 2019 (COVID-19): a systematic review of chest CT findings in 4410 adult patients**  
   Anon. European radiology 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=33e28769a38fffa46e6e98a45ff80385)

1. **Cytosponge for detecting abnormal cells in the oesophagus**  
   Anon. National Institute for Health and Clinical Excellence - Advice 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=323cc3f3492a02d70c1b0ab8096fb5b0)

1. **Does coronavirus affect the audio-vestibular system? A rapid systematic review**  
   Anon. International journal of audiology 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=813fa48d4af5464752f1832e5ead324e)

1. **Esophageal Rupture Associated With COVID-19: A Novel Case Report**  
   Meloy Patrick Cureus 2020;12:e12256.

Emergency departments (EDs) are the primary driver for hospital admissions in the United States (US), and that trend is likely to continue through the ongoing severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic. As the US continues to experience rampant community spread, coronavirus disease 2019 (COVID-19) will likely present in increasingly variable ways to the EDs. We present a case of Mallory-Weiss tear and esophageal perforation, which was likely caused by COVID-19 pneumonia. This case is notably the first of its kind that we have seen reported in the COVID-19-related literature. Clinicians should be vigilant about the various complications of COVID-19 and continue to exercise caution when seeing and treating these patients. Copyright © 2020, Meloy et al.

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1. **Faster Than the Speed of Light, More Powerful Than**  
   Zimmerman Karen G. CASE 2020;4:315.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=d6fd94c72a19d826e8176d2c0d57985a)

1. **Guidance for Return to Practice for Otolaryngology-Head and Neck Surgery: Part Two**  
   Anon. American Academy of Otolaryngology - Head and Neck Surgery 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=cd3eec37ded673d06f65736ce804bd5e)

1. **Images of the month: An incidental finding of spontaneous pneumomediastinum (Hamman's syndrome) secondary to diabetic ketoacidosis during the coronavirus pandemic**  
   Marchon Keisha A. Clinical medicine (London, England) 2020;20:e275-e277.

Hamman's syndrome is a spontaneous pneumomediastinum and is described as a rare complication of diabetic ketoacidosis (DKA). It typically follows a self-limiting course after successful treatment of the underlying DKA. We describe a case of a 28-year-old woman with type 1 diabetes presenting with facial pain, vomiting and abdominal pain. She also complained of dyspnoea and chest pain. She was diagnosed and treated for DKA triggered by a dental abscess. Given the presentation during the coronavirus pandemic, a computed tomography pulmonary angiography was performed in line with the diagnostic pathway for COVID-19, which incidentally showed a significant pneumomediastinum and pneumopericardium. The patient was initially investigated for oesophageal rupture secondary to vomiting (Boerhaave's syndrome), however, remained clinically stable throughout. Follow-up computed tomography showed near-complete resolution of pneumomediastinum with no intervention other than treatment of DKA. This therefore confirmed Hamman's syndrome. We propose that given the benign nature of the condition and the incidental finding in this report, as well as poor identification of mediastinal gas on chest X-ray, Hamman's syndrome is more common than reported. Copyright © Royal College of Physicians 2020. All rights reserved.

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1. **Impact of bacterial toxins in the lungs**  
   Gorshkov Boris Toxins 2020;12:223.

Bacterial toxins play a key role in the pathogenesis of lung disease. Based on their structural and functional properties, they employ various strategies to modulate lung barrier function and to impair host defense in order to promote infection. Although in general, these toxins target common cellular signaling pathways and host compartments, toxin- and cell-specific effects have also been reported. Toxins can affect resident pulmonary cells involved in alveolar fluid clearance (AFC) and barrier function through impairing vectorial Na+ transport and through cytoskeletal collapse, as such, destroying cell-cell adhesions. The resulting loss of alveolar-capillary barrier integrity and fluid clearance capacity will induce capillary leak and foster edema formation, which will in turn impair gas exchange and endanger the survival of the host. Toxins modulate or neutralize protective host cell mechanisms of both the innate and adaptive immunity response during chronic infection. In particular, toxins can either recruit or kill central players of the lung's innate immune responses to pathogenic attacks, i.e., alveolar macrophages (AMs) and neutrophils. Pulmonary disorders resulting from these toxin actions include, e.g., acute lung injury (ALI), the acute respiratory syndrome (ARDS), and severe pneumonia. When acute infection converts to persistence, i.e., colonization and chronic infection, lung diseases, such as bronchitis, chronic obstructive pulmonary disease (COPD), and cystic fibrosis (CF) can arise. The aim of this review is to discuss the impact of bacterial toxins in the lungs and the resulting outcomes for pathogenesis, their roles in promoting bacterial dissemination, and bacterial survival in disease progression.Copyright © 2020 by the authors.

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1. **Incidental lung findings suspicious for SARS-CoV-2 infection in patients undergoing PET/CT during COVID-19 pandemic**  
   Zanoni L. European Journal of Nuclear Medicine and Molecular Imaging 2020;47:S433-S434.

Aim/Introduction: SARS-CoV-2 infection may remain asymptomatic/falsely negative at pharyngeal RT-PCR, thus leading to COVID-19 underdiagnosis. Incidental pneumonia suspicious for COVID-19 in routine PET/ CT examinations is reported. Material(s) and Method(s): During Italian-Phase1-COVID-19-restrictions (21Feb2020-April2020), among triage-selected PET/CT performed for standard-indication in our MNM-Institution (n=2025), we retrospectively, preliminary analysed patients with findings suspicious for COVID-19 pneumonia, respectively: SARS-CoV-2-RT-PCR-negative (at least 1) at the time of PET/CT (n=53) who unexpectedly turned out positive at subsequent RT-PCR tests (n=4/53), and asymptomatic, with incidental suspected viral pneumonia at PET/CT, immediately addressed to further investigations (n=14).All PET/CT were retrospectively reviewed by at least 2 expert readers; any lung/mediastinal potentially infectious finding was reported at PET (visual and SUVmax interpretation) and low-dose-CT (LDCT) images. Short-term clinical/ laboratory/diagnostic-CT follow-up data were collected for validation. COVID-19 likelihood was finally categorized as: 'certain'(RT-PCR-positive), 'probable'(RT-PCR-negative but likely infected, treated), 'indeterminate'(RT-PCR negative but isolated), 'excluded'. Result(s): Overall 18 pts were included (M:F=16:2; mean 67[47-84] years; 6/18 inpatients). PET-clinical-indication were: FUO 4/18, oncological 14/18. Radiotracers: 18F-FDG 15/18, 11C-Choline 2/18 ; 68Ga-PSMA 1/18.Overall 17/18 (94%) presented tracer-avid suspicious ground-glass(GG)/consolidations: 7/17 monolateral, 10/17 bilateral, mostly multilobar (8/17) but predominantly basal (16/17). Among the 15 18F-FDG-avid lung findings, SUVmax ranged 2-10 (median 3.7, mean 4.4+/-2.5). No suspicious avid/enlarged hilar/mediastinal nodes were found. Nonavid LDCT lung findings were detected in 12/18 (67%) (mainly GG/consolidation or combination, pleural-effusion, bibasal disventilation).All 18 pts were addressed to RT-PCR after PET/CT and finally classified for COVID-19 as: 'certain' (5), 'probable'(5), 'indeterminate'(5), 'excluded'(3). At least 7/18 patients were hospitalized in COVID-area.8/18 patients presented double RT-PCR negativity and no symptoms the day of PET/CT: 4/8 however subsequently turned out positive at 3rd RT-PCR (4th in 1 case) (mean 12 days from PET[9-15]), with concordant HRCT, later hospitalized and treated; to note 1 coinfection case (Pneumococcal remission/COVID-19 progression). Among the other 4/8 persistingly negative RTPCR cases, 1 was 'probable', 1 'indeterminate', 2 'excluded' (bacterial).Among the 10/18 asymptomatic cases, only 1/10 was 'certain' (RT-PCR positive 13 days after PET) and responded to hydroxychloroquine.Among the remaining 9/10 asymptomatic and RT-PCR negative patients, 4/9 presented concordant HRCT and considered 'probable'(2/4 hospitalized), 4/9 'indeterminate', 1 'excluded'(bacterial). Conclusion(s): During COVID-19 pandemic, incidental PET/ CT detection of asymptomatic/previously RT-PCR-negative lung infection is not infrequent and should be reported 'real-time' having relevant implications for further clinical/ contact exposures management. LDCT findings are reliable whereas PET-tracer avidity is not able to discriminate aetiology. Isolation and rigorous monitoring is crucial when etiology remains indeterminate.

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1. **Lung cancer and mesothelioma service guidance during the COVID-19 pandemic**  
   Anon. British Thoracic Society 2020;:No page numbers.

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1. **Managing cancer patients during the COVID-19 pandemic: An ESMO Interdisciplinary Expert Consensus**  
   Anon. European Society for Medical Oncology 2020;:No page numbers.

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1. **Meta-analysis of chest CT features of patients with COVID-19 pneumonia**  
   Anon. Journal of medical virology 2020;:No page numbers.

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1. **Meta-Analysis of Failure of Prehospital Endotracheal Intubation in Pediatric Patients**  
   Anon. Emergency medicine international 2020;:No page numbers.

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1. **Methods for Endoscopic Removal of Over-the-Scope Clip: A Systematic Review**  
   Anon. Canadian Journal of Gastroenterology and Hepatology 2020;:No page numbers.

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1. **Observation of Retropharyngeal Fluid Collection in 2 COVID-19 Positive Patients**  
   Steehler Andrew J. Ear, nose, & throat journal 2020;:145561320971370.

Our understanding of the novel coronavirus, COVID-19, is growing; yet, there remains much we do not understand, and unique presentations are abundant. One potential presentation is retropharyngeal edema, defined as fluid in the retropharyngeal space. Multiplanar imaging with computed tomography or magnetic resonance imaging is ideal for characterizing and diagnosing these fluid collections rapidly as possible life-threatening complications may develop (eg, airway obstruction and mediastinitis). Here, we discuss the presentation, imaging identification, treatment, and recovery of retropharyngeal fluid collection in 2 COVID-19 cases. The significance of this article is to suggest conservative management as a viable treatment option for retropharyngeal fluid collection, as opposed to incision and drainage, in the setting of COVID-19.

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1. **Pediatric Endoscopy in the Era of Coronavirus Disease 2019: A North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition Position Paper**  
   Anon. North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition 2020;:No page numbers.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=c52d06f70956f16a8b1f581a34cab324)

1. **Percutaneous dilatational tracheostomy for saturating influx of COVID-19 patients: Experience of military ENT physicians deployed in Mulhouse, France**  
   Morvan J. B. European Annals of Otorhinolaryngology, Head and Neck Diseases 2020;137:263-268.

Objectives: The main objective was to demonstrate the feasibility of percutaneous tracheostomy performed under difficult conditions by military ENT physicians during their deployment in the military intensive care field hospital of the French Military Medical Service in Mulhouse to confront the exceptional COVID-19 pandemic. The secondary objective was to assess reliability and safety for patient and caregivers, with a risk of iatrogenic viral contamination. Material(s) and Method(s): A single-center retrospective study was conducted between March 25 and April 25, 2020, in 47 COVID-19 patients requiring prolonged mechanical ventilation. The inclusion criterion was having undergone percutaneous tracheostomy. Result(s): Eighteen consecutively included patients had successfully undergone percutaneous tracheostomy despite unfavorable anatomical conditions (short neck: 83.3%, overweight or obese: 88.9%). Median time to completion was 11 days after intubation, with an average duration of 7 minutes. The procedure was technically compliant in 83.3% of cases, and considered easy (on self-assessment) in 72.2%, with 2 minor per-procedural complications. No crossover to surgery was required. There was only 1 major post-procedural complication (late hemorrhage). Conclusion(s): This study showed the feasibility of percutaneous tracheostomy by an ENT physician under COVID-19 biohazard conditions. The technique was fast, easy and safe and met safety requirements for patient and staff.Copyright © 2020

[http://www.sciencedirect.com/science/journal/18797296 this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=1ee2f6c757e235470652f467713fa0dd)

1. **RECOGNITION OF A TRACHEOESOPHAGEAL FISTULA IN A MECHANICALLY VENTILATED PATIENT**  
   Vallumsetla Nishanth Chest 2020;158:A715.

SESSION TITLE: Fellows Critical Care Posters SESSION TYPE: Fellow Case Report Posters PRESENTED ON: October 18-21, 2020 INTRODUCTION: Tracheoesophageal fistula (TEF) can present as either congenital or acquired abnormality. Acquired TEF is usually secondary to malignant tumors. Prolonged mechanical ventilation with cuff related injury leading to a non-malignant TEF usually presents post extubation although it has become rare with the introduction of high-volume low-pressure cuffs(1). Occurrence of TEF & its early identification in a mechanically ventilated patient is of critical importance to prevent severe ventilator inefficiency, sepsis and compromised nutrition. Here we present a case of TEF presenting in a ventilator dependent patient. CASE PRESENTATION: A 69 year old female with past medical history of diabetes and hypertension presented with hypoxemic respiratory failure due to COVID-19 pneumonia requiring mechanical ventilation. Course was complicated by methicillin resistant Staphylococcus aureus (MRSA) bacteremia treated with intravenous Vancomycin. After 3 weeks of mechanical ventilation, surgical tracheostomy was performed. One week later, she developed tracheostomy site MRSA infection. Two weeks later, the patient developed sudden severe abdominal distension and tachypnea with higher oxygen requirements. Abdominal x-ray showed severely distended bowel loops which improved with orogastric (OG) tube suctioning but recurred when it was turned off (fig 1). The ventilator volume graphs revealed a large air leak despite an adequately inflated cuff and the external tip of the OG tube under water showed continuous bubbling. Above findings raised suspicion of TEF which was confirmed by CT imaging (fig 2). As patient was unstable for surgical intervention, the regular tracheostomy tube replaced with an extended length (XLT) tracheostomy tube which led to resolution of air leak. DISCUSSION: Acquired TEF can occur in the setting of prolonged mechanical ventilation, indwelling tracheal or esophageal stents, mediastinal infections and trauma or iatrogenic injuries. Common presenting complaint is persistent cough upon food consumption post extubation. It is a rare complication occurring in less than 1% of patients undergoing tracheostomy. In ventilator dependent patients, presenting signs include persistent air leak even with a fully inflated cuff, abdominal distension and airway contamination with gastric contents(2). Endoscopy is considered the best diagnostic method, though small TEFs may be missed in the esophageal folds. Bronchoscopy with methylene blue installation identifies the defect better. Imaging with CT/MRI is preferred in ventilator dependent patients. The mainstay of treatment of TEF in ventilated patients is usually conservative management with XLT tracheostomy tube or esophageal stenting. CONCLUSION(S): TEF is a rare complication. Acute bowel distension with a large continuous air leak on the ventilator & through OG tube (bubbling underwater), despite a fully inflated cuff should raise clinical suspicion. Reference #1: 1.Reed MF, Mathisen DJ. Tracheoesophageal fistula. Chest Surg Clin N Am. 2003;13(2):271-289. doi:10.1016/s1052-3359(03)00030-9 Reference #2: 2.Paraschiv M. Tracheoesophageal fistula-a complication of prolonged tracheal intubation. J Med Life. 2014;7(4):516-521. DISCLOSURES: No relevant relationships by padmanabhan krishnan, source=Web Response No relevant relationships by Chetana Pendkar, source=Web Response No relevant relationships by Sumedha Sonde, source=Web Response No relevant relationships by Nishanth Vallumsetla, source=Web ResponseCopyright © 2020 American College of Chest Physicians

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1. **Retropharyngeal Abscess in an adult with Pneumonia during COVID-19 Outbreak in China**  
   Wang Tianyu 2020;:No page numbers.

&lt;h4&gt;Background: &lt;/h4&gt; Retropharyngeal abscesses are rarely reported in adults and occur mostly in patients with immunocompromise or as a foreign body complication. Admittedly, the treatment of retropharyngeal abscesses frequently involves surgical drainage to achieve the best results. However, when retropharyngeal abscesses occurred in a highly suspected patient with COVID-19, the managements and treatments should be caution in order to prevent the spread of the virus. Case presentation: On Feb. 13, a 40-year-old male with retropharyngeal abscesses turned to our department complaining dyspnea and dysphagia. In addition, his chest CT scan shows a suspected COVID-19 infection, thus making out Multiple Disciplinary Team (MDT) determine to perform percutaneous drainage and catheterization through left anterior cervical approach under the guidance of B-ultrasound. Finally, the patient recovered and was discharged from the hospital on Feb. 27 after 14 days of isolation. There was no recurrence after half a year follow-up. &lt;h4&gt;Conclusions: &lt;/h4&gt; By presenting this case, we aim at raising awareness of different surgical drainage methods and summarizing our experience in the management of retropharyngeal abscesses during the outbreak of COVID-19.

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1. **SARS-CoV-2 pneumonia with subcutaneous emphysema, mediastinal emphysema, and pneumothorax: A case report**  
   Chunlin Xiang Medicine 2020;99:e20208.

SARS-CoV-2 pneumonia with subcutaneous emphysema, mediastinal emphysema, and pneumothorax: A case report. Since the end of 2019, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection has affected more than 1,000,000 population in the world. Subcutaneous emphysema and pneumothorax are uncommon complications of SARS-CoV-2 pneumonia. Herein, we describe a fatal case of SARS-CoV-2 pneumonia with subcutaneous emphysema and pneumothorax.Subcutaneous emphysema was found in neck, bilateral chest walls, abdomen wall, groin area, and scrotum of a 67-year-old man. Extensive air-space opacities, subcutaneous emphysema and a small amount of pneumothorax were found in his chest X-ray scan. Echocardiography showed left ventricular enlargement with ejection fraction 20%.This resident of Wuhan with laboratory-confirmed SARS-CoV-2 infection had chronic pulmonary and cardiac diseases. Liver dysfunction, myocardial injury, and coagulation disorder were suggested by laboratory findings. Pneumonia, subcutaneous emphysema, and pneumothorax were confirmed with chest X-ray. Heart failure was revealed by echocardiography.He was transferred to intensive care unit, where invasive ventilation was used for him during the whole hospitalization. Prone position ventilation, vasoconstrictor, antibacteria, and antiviral therapy were given.He died on the twelfth day after admission.Subcutaneous emphysema and pneumothorax may occur in patients with SARS-CoV-2 pneumonia and chronic pulmonary disease. Chronic cardiac disease might be aggravated by SARS-CoV-2 infection, and develop heart failure.

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1. **Severe parapharyngeal abscess that developed significant complications: management during the COVID-19 pandemic**  
   Ajeigbe Teslimat BMJ case reports 2020;13:No page numbers.

A 50-year-old Caucasian man presented to the emergency department during the early stages of the COVID-19 pandemic with a rapidly progressive facial swelling, fever, malaise and myalgia. The patient had recently travelled to a COVID-19-prevalent European country and was therefore treated as COVID-19 suspect. The day before, the patient sustained a burn to his left forearm after falling unconscious next to a radiator. A CT neck and thorax showed a parapharyngeal abscess, which was surgically drained, and the patient was discharged following an intensive care admission. He then developed mediastinitis 3 weeks post-discharge which required readmission and transfer to a cardiothoracic unit for surgical drainage. This report discusses the evolution of a deep neck space infection into a mediastinitis, a rare and life-threatening complication, despite early surgical drainage. This report also highlights the difficulties faced with managing patients during the COVID-19 pandemic. Copyright © BMJ Publishing Group Limited 2020. No commercial re-use. See rights and permissions. Published by BMJ.

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1. **Severe parapharyngeal abscess that developed significant complications: Management during the COVID-19 pandemic**  
   Ajeigbe Teslimat BMJ Case Reports 2020;13:e236449.

A 50-year-old Caucasian man presented to the emergency department during the early stages of the COVID-19 pandemic with a rapidly progressive facial swelling, fever, malaise and myalgia. The patient had recently travelled to a COVID-19-prevalent European country and was therefore treated as COVID-19 suspect. The day before, the patient sustained a burn to his left forearm after falling unconscious next to a radiator. A CT neck and thorax showed a parapharyngeal abscess, which was surgically drained, and the patient was discharged following an intensive care admission. He then developed mediastinitis 3 weeks post-discharge which required readmission and transfer to a cardiothoracic unit for surgical drainage. This report discusses the evolution of a deep neck space infection into a mediastinitis, a rare and life-threatening complication, despite early surgical drainage. This report also highlights the difficulties faced with managing patients during the COVID-19 pandemic.Copyright © 2020 BMJ Publishing Group Limited. Published by BMJ.

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1. **Subcutaneous Emphysema in Patients With COVID-19 Infection: A Report of Three Cases**  
   Toquica Gahona Christian C. Cureus 2020;12:e10559.

Subcutaneous emphysema is a rare complication of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pneumonia that should prompt immediate attention to find its cause. Herein, we describe three patients with SARS-CoV-2 pneumonia who were admitted to the ICU and developed subcutaneous emphysema and one with a concomitant pneumothorax. Three patients with diagnosis of SARS-CoV-2 pneumonia admitted to the ICU developed subcutaneous emphysema during the hospital admission. One of them who had concomitant pneumothorax required thoracostomy tube for treatment and the other two were monitored clinically without additional interventions. Two patients died during the first two to three weeks of their hospital course. One patient survived and was discharged after 63 days in the hospital. Subcutaneous emphysema is considered a non-life-threatening condition and is usually self-limited requiring supportive treatment in mild cases. For such cases, observation is appropriate. Patients with newly discovered SE life-threatening pathology, such as pneumothorax, esophageal rupture, and necrotizing infections, should be investigated depending on the clinical setting. This is one of the first paper that shows the development of subcutaneous emphysema in patients with SARS-CoV-2 pneumonia. This may represent a rare complication of the infection as well as may be attributable to other factors such as increased cough and mechanical ventilation. There is a need for studies on the clinical characteristics of a disease with still many unknown features and a wide clinical spectrum that is still being defined. Copyright © 2020, Toquica Gahona et al.

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1. **The Use of Bronchoscopy During the Coronavirus Disease 2019 Pandemic: CHEST/AABIP Guideline and Expert Panel Report**  
   Anon. American College of Chest Physicians 2020;:No page numbers.

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1. **SECCIÓN IV: ENFOQUE QUIRÚRGICO**  
   Constante Natali Moyón -;:No page numbers.

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| 7. | Ovid MEDLINE(R) ALL <1946 to May 06, 2021> | (("seafood market\*" or "food market\*") adj10 (Wuhan\* or Hubei\* or China\* or Chinese\* or Huanan\*)).ti,ab,kw,kf. | 104 |
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| 18. | Ovid MEDLINE(R) ALL <1946 to May 06, 2021> | exp Esophageal Perforation/ | 4353 |
| 19. | Ovid MEDLINE(R) ALL <1946 to May 06, 2021> | ((Oesophag\* or esophag\*) adj3 (tear or rupture or perforat\*)).ti,ab,kf. | 5577 |
| 20. | Ovid MEDLINE(R) ALL <1946 to May 06, 2021> | "Boerhaave\* syndrome".ti,ab,kf. | 723 |
| 21. | Ovid MEDLINE(R) ALL <1946 to May 06, 2021> | or/18-20 | 7600 |
| 22. | Ovid MEDLINE(R) ALL <1946 to May 06, 2021> | 17 or 21 | 12452 |
| 23. | Ovid MEDLINE(R) ALL <1946 to May 06, 2021> | 12 and 22 | 8 |
| 1. | Embase <1974 to 2021 Week 17> | exp Coronavirinae/ | 47150 |
| 2. | Embase <1974 to 2021 Week 17> | exp Coronavirus infection/ | 126180 |
| 3. | Embase <1974 to 2021 Week 17> | ("coronavirus disease 2019" or "severe acute respiratory syndrome coronavirus 2").sh,dj. | 110292 |
| 4. | Embase <1974 to 2021 Week 17> | ((corona\* or corono\*) adj1 (virus\* or viral\* or virinae\*)).ti,ab,kw. | 2636 |
| 5. | Embase <1974 to 2021 Week 17> | (coronavirus\* or coronovirus\* or coronavirinae\* or CoV).ti,ab,kw. | 81155 |
| 6. | Embase <1974 to 2021 Week 17> | ("2019-nCoV\*" or 2019nCoV\* or "19-nCoV\*" or 19nCoV\* or nCoV2019\* or "nCoV-2019\*" or nCoV19\* or "nCoV-19\*" or "COVID-19\*" or COVID19\* or "COVID-2019\*" or COVID2019\* or "HCoV-19\*" or HCoV19\* or "HCoV-2019\*" or HCoV2019\* or "2019 novel\*" or Ncov\* or "n-cov" or "SARS-CoV-2\*" or "SARSCoV-2\*" or "SARSCoV2\*" or "SARS-CoV2\*" or SARSCov19\* or "SARS-Cov19\*" or "SARSCov-19\*" or "SARS-Cov-19\*" or SARSCov2019\* or "SARS-Cov2019\*" or "SARSCov-2019\*" or "SARS-Cov-2019\*" or SARS2\* or "SARS-2\*" or SARScoronavirus2\* or "SARS-coronavirus-2\*" or "SARScoronavirus 2\*" or "SARS coronavirus2\*" or SARScoronovirus2\* or "SARS-coronovirus-2\*" or "SARScoronovirus 2\*" or "SARS coronovirus2\*" or covid).ti,ab,kw. | 119748 |
| 7. | Embase <1974 to 2021 Week 17> | (respiratory\* adj2 (symptom\* or disease\* or illness\* or condition\*) adj5 (Wuhan\* or Hubei\* or China\* or Chinese\* or Huanan\*)).ti,ab,kw. | 403 |
| 8. | Embase <1974 to 2021 Week 17> | (("seafood market\*" or "food market\*") adj10 (Wuhan\* or Hubei\* or China\* or Chinese\* or Huanan\*)).ti,ab,kw. | 106 |
| 9. | Embase <1974 to 2021 Week 17> | (pneumonia\* adj3 (Wuhan\* or Hubei\* or China\* or Chinese\* or Huanan\*)).ti,ab,kw. | 654 |
| 10. | Embase <1974 to 2021 Week 17> | ((outbreak\* or wildlife\* or pandemic\* or epidemic\*) adj1 (Wuhan\* or Hubei\* or China\* or Chinese\* or Huanan\*)).ti,ab,kw. | 174 |
| 11. | Embase <1974 to 2021 Week 17> | "severe acute respiratory syndrome\*".ti,ab,kw. | 19538 |
| 12. | Embase <1974 to 2021 Week 17> | or/1-11 | 160229 |
| 13. | Embase <1974 to 2021 Week 17> | limit 12 to yr="2019 -Current" | 136401 |
| 14. | Embase <1974 to 2021 Week 17> | limit 13 to medline | 29894 |
| 15. | Embase <1974 to 2021 Week 17> | 13 not 14 | 106507 |
| 16. | Embase <1974 to 2021 Week 17> | mediastinitis/ | 6542 |
| 17. | Embase <1974 to 2021 Week 17> | mediastinitis.ti,ab,kw. | 5531 |
| 18. | Embase <1974 to 2021 Week 17> | (mediastin\* adj2 (infect\* or inflammation)).ti,ab,kw. | 912 |
| 19. | Embase <1974 to 2021 Week 17> | "fibrous mediastinitis".ti,ab,kw. | 34 |
| 20. | Embase <1974 to 2021 Week 17> | or/16-19 | 8157 |
| 21. | Embase <1974 to 2021 Week 17> | exp esophagus perforation/ | 6921 |
| 22. | Embase <1974 to 2021 Week 17> | ((Oesophag\* or esophag\*) adj3 (tear or rupture or perforat\*)).ti,ab,kw. | 7100 |
| 23. | Embase <1974 to 2021 Week 17> | "Boerhaave\* syndrome".ti,ab,kw. | 1021 |
| 24. | Embase <1974 to 2021 Week 17> | or/21-23 | 10217 |
| 25. | Embase <1974 to 2021 Week 17> | 20 or 24 | 17445 |
| 26. | Embase <1974 to 2021 Week 17> | 15 and 25 | 13 |

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