



R E A D I N G S

A SELECTION OF TEN READINGS ON TOPICS RELATED TO EMERGENCY MEDICINE

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Selection of readings made by A/Prof Goh Lee Gan

READING 1. NASAL FRACTURES SECONDARY TO ASSAULT

Jaberoo MC,¹ Joseph J, Korgaonkar G, Mylvaganam K, Adams B, Keene M. Medico-legal and ethical aspects of nasal fractures secondary to assault: do we owe a duty of care to advise patients to have a facial x-ray? *J Med Ethics*. 2013 Feb;39(2):125-6. PubMed PMID: 23172899.

URL: <http://jme.bmj.com/content/39/2/125.long> [payment required] 16. *J Med Ethics*. 2013 Feb;39(2):125-6.

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ABSTRACT

Guidelines advise that X-rays do not contribute to the clinical management of simple nasal fractures. However, in cases of simple nasal fracture secondary to assault, a facial X-ray may provide additional legal evidence should the victim wish to press charges, though there is no published guidance. We examine the ethical and medico-legal issues surrounding this controversial area.

PMID: 23172899 [PubMed - indexed for MEDLINE]

READING 2. CARE OF ACUTE WOUNDS

Ubbink DT,¹ Brölmann FE,² Go PM,³ Vermeulen H. I,⁴ Evidence-Based Care of Acute Wounds: A Perspective. *Adv Wound Care (New Rochelle)*. 2015 May 1;4(5):286-294. Review. PubMed PMID: 26005594; PubMed Central PMCID: PMC4432965.

URL

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4432965/pdf/wound.2014.0592.pdf> [free full text]

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ABSTRACT

Significance: Large variation and many controversies exist regarding the treatment of, and care for, acute wounds, especially regarding wound cleansing, pain relief, dressing choice, patient instructions, and organizational aspects. Recent Advances: A multidisciplinary team developed evidence-based guidelines for the Netherlands using the AGREE-II and GRADE instruments. A working group, consisting of 17 representatives from all professional societies involved in wound care, tackled five controversial issues in acute-wound care, as provided by any caregiver throughout the whole chain of care. Critical Issues:

The guidelines contain 38 recommendations, based on best available evidence, additional expert considerations, and patient experiences. In summary, primarily closed wounds need no cleansing; acute open wounds are best cleansed with lukewarm (drinkable) water; apply the WHO pain ladder to choose analgesics against continuous wound pain; use lidocaine or prilocaine infiltration anesthesia for wound manipulations or closure; primarily closed wounds may not require coverage with a dressing; use simple dressings for open wounds; and give your patient clear instructions about how to handle the wound. Future Directions: These evidence-based guidelines on acute wound care may help achieve a more uniform policy to treat acute wounds in all settings and an improved effectiveness and quality of wound care.

PMCID: PMC4432965. PMID: 26005594 [PubMed]

READING 3. QUESTIONS ON WOUND CARE

Worster B,¹ Zawora MQ,¹ Hsieh C.¹ Common questions about wound care. *Am Fam Physician*. 2015 Jan 15;91(2):86-92. PubMed PMID: 25591209.

URL: <http://www.aafp.org/afp/2015/0115/p86.html> [payment required]

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ABSTRACT

Lacerations, abrasions, burns, and puncture wounds are common in the outpatient setting. Because wounds can quickly become infected, the most important aspect of treating a minor wound is irrigation and cleaning. There is no evidence that antiseptic irrigation is superior to sterile saline or tap water. Occlusion of the wound is key to preventing contamination. Suturing, if required, can be completed up to 24 hours after the trauma occurs, depending on the wound site. Tissue adhesives are equally effective for low-tension wounds with linear edges that can be evenly approximated. Although patients are often instructed to keep their wounds covered and dry after suturing, they can get wet within the first 24 to 48 hours without increasing the risk of infection. There is no evidence that prophylactic antibiotics improve outcomes for most simple wounds. Tetanus toxoid should be administered as soon as possible to patients who have not received a booster in the past 10 years. Superficial mild wound infections can be treated with topical agents, whereas deeper mild and moderate infections should be treated with oral antibiotics. Most severe infections, and moderate infections in high-risk patients, require initial parenteral antibiotics. Severe burns and wounds that cover large areas of the body or involve the face, joints, bone, tendons, or nerves should generally be referred to wound care specialists.

PMID: 25591209 [PubMed - in process]

READING 4. EYE: PHYSICAL AND CHEMICAL INJURIES

Pargament JM,¹ Armenia J,² Nerad JA.² Physical and chemical injuries to eyes and eyelids. *Clin Dermatol*. 2015 Mar-Apr;33(2):234-7.

URL: <http://www.sciencedirect.com/science/article/pii/S0738081X14002430?np=y> [payment required]

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ABSTRACT

Ocular and periocular injuries are common reasons for emergency department visits. In fact, an estimated 2 million Americans suffer ocular injuries each year. Evaluation and treatment of physical and chemical injuries to the eyes and eyelids begin with a systematic examination. Visual acuity and pupillary reaction should be assessed first. Evaluation of the eye should precede examination of the periocular structures due to the potential for causing further damage to a full-thickness ocular injury with manipulation of the eyelids. Physical injuries to the eyes and periocular structures include lacerations, abrasions, foreign bodies, and open globe injuries and can range from minor irritation to visual evastation. Chemical injuries can be divided into alkali and acid injuries. Alkali burns are more common, due to the prevalent use of alkali substances in industrial and home cleaning applications, and usually result in more serious injuries. Definitive care of chemical injuries ranges from topical antibiotics to full-thickness skin grafts with the goal of preventing cicatricial scarring and exposure of the ocular surface. Familiarity with the various types of ocular and periocular injuries is important for all medical professionals and is critical to providing the most appropriate management.

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READING 5. EAR, NOSE, THROAT FOREIGN BODIES

Oreh AC,¹ Folorunsho D,² Ibekwe TS.² Actualities of management of aural, nasal, and throat foreign bodies. *Ann Med Health Sci Res.* 2015 Mar-Apr;5(2):108-14. PubMed PMID: 25861529; PubMed Central PMCID: PMC4389324.

URL: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4389324/> [free full text]

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ABSTRACT

BACKGROUND: Foreign bodies (Fbs) in the ear, nose, and throat (ENT) are common presentations in healthcare settings worldwide.

AIM: This study was carried out to review the modes of presentation, management, and outcome of inserted Fbs in our setting.

SUBJECTS AND METHODS: A 5-year retrospective study of cases of ENT Fbs managed at two referral hospitals in Abuja Nigeria. The analysis was done with Chi-square and Pearson correlation.

RESULTS: Five hundred and ninety-four patients aged 0-75 years, M:F = 1.1 (295 vs. 299) were reviewed. Prevalence was predominantly among the under 5 s; 286/594 (P = 0.001). ENT Fbs were 356/594 (59.9%), 167/594 (28.1%) and 71/594 (12.0%), respectively. Cotton wool 133/356 (37.4%) and beads 75/356 (21.1%) constituted most aural Fbs. Beads 45/167 (27.0%) and grains/seed 37/167 (22.1%) were the most common nasal Fbs while fish bones 38/71 (53.5%) and piece of metals 12/71 (16.9%) were dominant in the throat. Most cases of aural and nasal Fbs were asymptomatic. Ear syringing was the most common method for removal of aural Fbs 216/594 (60.7%) and instrumentation under direct vision for nasal Fbs 153/167 (91.6%). Furthermore, 52/71 (73.2%) of throat Fbs were removed under general anesthesia. ENT complications observed included bruises, lacerations, perforations, Epistaxis, and a case of respiratory failure. Delayed presentation (beyond 24 h) was seen in 489/594 (82.3%) of cases while failed previous attempts by untrained hands constituted 353/594 (59.4%). A strong correlation between complications and duration of Fbs insertion (R (2) = 0.8759) was established.

CONCLUSIONS: Fbs in ENT are common especially among children below 5 years. Majority presented beyond 24 h, and there was a strong correlation between duration of Fbs insertion and associated complications. Repeated failed attempts and delayed referrals to otorhinolaryngologists from peripheral centers were also contributing factors to increased morbidity and hence the need for awareness.

PMCID: PMC4389324 PMID: 25861529 [PubMed]

READING 6. BUTTON BATTERY INGESTION

Kalyanshettar S,¹ Patil S,² Upadhye G.³ Button battery ingestion—case report and review. J Clin Diagn Res. 2014 Sep;8(9):PD01-2. PubMed PMID: 25386497; PubMed Central PMCID: PMC4225949.

URL: <http://www.ncbi.nlm.nih.gov.libproxy1.nus.edu.sg/pmc/articles/PMC4225949/> [free full text]

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ABSTRACT

Over the last few years there is a rise in use of button batteries in various toys and other electronic gadgets. Easy availability and small size of these batteries pose a significant risk of ingestion in small children. Button battery ingestion can lead to serious health hazards very rapidly. A case of button battery ingestion is presented in this paper.

PMCID: PMC4225949 PMID: 25386497 [PubMed]

READING 7. INHALATION OF FOREIGN BODIES IN CHILDREN

Sahin A, Meteroglu F,¹ Eren S, Celik Y. Inhalation of foreign bodies in children: experience of 22 years. J Trauma Acute Care Surg. 2013 Feb;74(2):658-63. PubMed PMID: 23354266.

URL: <http://www.ncbi.nlm.nih.gov.libproxy1/pubmed/?term=23354266%5Buid%5D> [payment required]

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ABSTRACT

BACKGROUND: Foreign body (FB) inhalation into airways of the respiratory system is a life-threatening condition and can be fatal. The purpose of this survey was to evaluate the types and characteristics of inhaled foreign bodies, the age distribution of children, and the outcome.

METHODS: We outlined a retrospective review of hospital data of patients between 1990 and 2012. FB inhalation occurring in children 0 year to 16 years was considered for inclusion. During the study period, 1,660 patients undergoing bronchoscopy with the diagnosis of FB were included. Deaths on arrival were excluded.

RESULTS: Of the patients, 53% were male, and 47% were female ($p > 0.05$). The mean age was 6.2 years for girls and 4.7 years for boys. In 57% of all cases, the children were younger than 3 years. An FB was found within the respiratory tract of 1,565 patients. The FBs were always extracted by using rigid bronchoscopy. Hospitalization was always required owing to an institutional requirement. The origin of the FBs were within the two main groups of food and objects. Food FBs included seeds, nuts, beans, and fruit parts. FB objects included pins, toy parts, and metal pieces. FB and subsequent treatment revealed that morbidity was present; however, mortality was rare.

CONCLUSION: Most of the inhaled FBs were found in the bronchial tree. Children younger than 3 years are more vulnerable. There seemed to be an association between the aspirated FBs and season, geographic locality, and sociocultural environment. The removal of choice is rigid bronchoscopy under general anesthesia. That most cases of FB in children occur under the supervision of adults indicates that the incidence and severity of airway FB inhalation can be reduced by parental education and public awareness. **LEVEL OF EVIDENCE:** Epidemiologic study, level III.

PMID: 23354266 [PubMed - indexed for MEDLINE]

READING 8. TRACHEO-BRONCHIAL FOREIGN BODIES

Jaswal A¹, Jana U², Maiti PK.² Tracheo-bronchial foreign bodies: a retrospective study and review of literature. Indian J Otolaryngol Head Neck Surg. 2014 Jan;66(Suppl 1):156-60. PubMed PMID: 24533376; PubMed Central PMCID: PMC3918283.

URL: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3918283/pdf/12070_2011_Article_386.pdf [free full text]

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ABSTRACT

Tracheo-bronchial foreign body aspiration is a common emergency in childhood constituting major cause of mortality. Although ample studies regarding airway foreign bodies are present in Western literature, studies in Indian context are however lacking. The aim of the study is to present an epidemiological data regarding airway foreign bodies in Indian context thereby helping to analyze the situation with regard to our socio-economic condition. Retrospective file review of all case (n = 82) that underwent rigid bronchoscopy for suspected tracheo-bronchial foreign body over a period of 7 years (2001-2008) in the department of otolaryngology of a tertiary care centre of eastern India. Patient characteristics, history, clinical, radiographic and bronchoscopic findings were noted in an attempt to define the epidemiology, clinical presentation, management and associated morbidity. Most common age of presentation was between 1 and 3 years (56.4%). Most common symptom in our study was cough, wheezing and respiratory distress (63.4%). Most common clinical signs at presentation were diminished breath sound in unilateral lung field seen in 36.6% cases. Most common radiological finding on chest radiograph was collapse seen in 41.65% cases. Most common type of foreign body below 3 years of age was food material (seeds, beans) removed in 48.78%. Complications were encountered in 14.6% cases of which most common complication was bronchospasm and acute respiratory distress seen in 41.6% cases.

PMCID: PMC3918283 PMID: 24533376 [PubMed]

READING 9. DEFINING EXACERBATIONS OF COPD

Hawkins PE¹, Alam J, McDonnell TJ, Kelly E. Defining exacerbations in chronic obstructive pulmonary disease. Expert Rev Respir Med. 2015 Jun;9(3):277-86. PubMed PMID: 26013261.

URL: <http://informahealthcare.com/doi/pdf/10.1586/17476348.2015.1046438> [payment required]

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ABSTRACT

Chronic obstructive pulmonary disease is a very common disease often punctuated by intermittent episodes of exacerbation. These exacerbations affect the natural history of the disease, accelerating a decline in lung function. They affect the individual in many ways and affect the health service caring for these patients. The definition of exacerbation varies and lacks clarity. The definitions used most are either symptom based, for example, breathlessness, sputum production and sputum purulence, or event driven, for example, an event causing a patient to seek healthcare input or change to medications. In this article, we discuss the importance of exacerbations, the clinical definitions, clinical trial definitions, physiological and biomarker evidence of exacerbations and the challenges associated with each of these. Application of a practical definition would aid in our clinical management of patients with chronic obstructive pulmonary disease and facilitate developments in future therapeutic advances through clinical trials.

PMID: 26013261 [PubMed - in process]

READING 10. MYOCARDITIS

Biesbroek PS,¹ Beek AM,² Germans T,³ Niessen HW,⁴ van Rossum AC.² Biesbroek PS, Beek AM, Germans T, Niessen HW, van Rossum AC. Diagnosis of myocarditis: Current state and future perspectives. *Int J Cardiol.* 2015 Jul 15;191:211-219. Review. PubMed PMID: 25974197.

URL: [http://www.internationaljournalofcardiology.com/article/S0167-5273\(15\)01025-6/pdf](http://www.internationaljournalofcardiology.com/article/S0167-5273(15)01025-6/pdf) [payment required]

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ABSTRACT

Myocarditis, i.e. inflammation of the myocardium, is one of the leading causes of sudden cardiac death (SCD) and dilated cardiomyopathy (DCM) in young adults, and is an important cause of symptoms such as chest pain, dyspnea and palpitations. The pathophysiological process of disease progression leading to DCM involves an ongoing inflammation as a result of a viral-induced auto-immune response or a persisting viral infection. It is therefore crucial to detect the disease early in its course and prevent persisting inflammation that may lead to DCM and end-stage heart failure. Because of the highly variable clinical presentation, ranging from mild symptoms to severe heart failure, and the limited available diagnostic tools, the evaluation of patients with suspected myocarditis represents an important clinical dilemma in cardiology. New approaches for the diagnosis of myocarditis are needed in order to improve recognition, to help unravel its pathophysiology, and to develop new therapeutic strategies to treat the disease. In this review, we give a comprehensive overview of the current diagnostic strategies for patients with suspected myocarditis, and demonstrate several new techniques that may help to improve the diagnostic work-up.

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