Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
nerve palsy (n=15, 2.8%), stroke (n=13, 2.4%), ruptured globe (n=12, 2.2%),
malignancy (n=11, 2.1%), idiopathic intracranial hypertension (n=11, 2.1%),
diplopia (n=10, 1.9%), visual loss (n=9, 1.7%), amaurosis fugax (n=5, 0.9%),
optic nerve disorder (n=4, 0.7%), retroorbital hemorrhage (n=4, 0.7%), abscess
(n=3, 0.6%), eye problem (n=3, 0.6%), eye swelling (n=2, 0.4%), giant cell
arteritis (n=2, 0.4%), retinal artery branch occlusion (n=2, 0.4%), and strabismus
(n=2, 0.4%) received necessary advanced neuroimaging. All patients with final
diagnoses of conjunctivitis (n=11, 2.1%), retinal detachment (n=7, 1.3%), cataract
(n=4, 0.7%), acute angle closure glaucoma (n=3, 0.6%), hordeolum (n=3, 0.6%),
dacrocystitis (n=2, 0.4%), floaters (n=2, 0.4%), uveitis (n=2, 0.4%), vitreous
detachment (n=2, 0.4%), and zoster ophthalmicus (n=2, 0.4%) received
unnecessary advanced neuroimaging. Eighty-one percent (n=43%) of patients
underwent CT only, 14.9% (n=1) underwent MRI only, and 6.7% (n=56) underwent both.
Sixty-two percent (n=330) of patients were discharged from the
ED, 37.5% (n=201) were admitted, 0.7% (n=4) left against medical advice, and
0.2% (n=1) placed in observation.

Conclusions: Of various ocular emergencies in which advanced neuroimaging was
not required, conjunctivitis and retinal detachment were the most common causes of
unnecessary imaging. Imaging was necessary for most patients with final diagnoses of
trauma and neurologic disorders. CT was the most common type of imaging modality
performed.

381 It’s a Hard Knock Life: How Kids With Mild Traumatic Brain Injuries Are Treated
Krishnan K, Su A, Long C/Loyola University Chicago Stritch School of
Medicine, Maywood, IL.

Study Objectives: The diagnosis and treatment of mild traumatic brain injuries (mTBI) by physicians in the emergency department (ED) is greatly varied. Due to the
frequency and long term consequences associated with pediatric head injuries, it is
crucial that adequate counseling is provided in acute care settings along with uniform
terminology for understanding. Currently, at many institutions including Loyola
University Medical Center (LUMC), there are no uniform guidelines set in place for
the treatment of mTBI in pediatric patients in the ED. The purpose of our study is to
evaluate existing practices at LUMC ED in order to address inconsistencies in
diagnostic or discharge practices for the implementation of future quality improvement
measures.

Methods: A retrospective cohort study was conducted at LUMC of pediatric
patient records from 2017 to 2020 for patients presenting with mTBI. A total of 1,160
patients aged 2 to 18 met inclusion criteria for analysis. Demographic, diagnostic, and
treatment data were summarized, and Pearson’s chi squared tests and Fisher’s exact
tests were performed to determine associations among patient characteristics and
provide guidance.

Results: The common etiologies of injury included sports related contact injuries
(24.7%) and falls (20.1%). In terms of evaluation, physicians did not uniformly use
existing criteria such as PECARN to determine if CT scans were needed (31.6% did
not use). However, there was correlation of utilizing this diagnostic tool with fall-
related injuries compared to other injury types (39.5%, p<0.001). Regarding
treatment, discharge instructions were predominantly based on a generalized template
on Epic (91.9%), with a minority of physicians providing additional specific
instructions to the patient through written, verbal, or additional supplemental material.
The most common formats included Epic only (66.1%), Epic and personalized written
instructions (20.2%), and Epic and verbal instructions (12.4%). When provided,
specific instructions were correlated with the injuries involving motor vehicle accidents
(p=0.001). Instructions for follow-up within 3 months of ED visit were provided to
93% of patients who received discharged instructions and were for primary care
(96.7%), sports medicine (1.58%), neurology (0.65%), or other providers (1.11%).

Conclusions: There is a lack of consistency in the evaluation and treatment of
mTBI in pediatric patients in the LUMC ED. There is a need for guidelines to be set
forth in order to ensure adequate patient (or parent) compliance and understanding.
More emphasis must be placed on providing educational resources and ensuring
appropriate follow-up care for patients, not only to help them manage an existing
mTBI, but also to prevent long-term consequences from occurring. Further studies
looking at long-term outcomes in these patients would also be beneficial.

382 Can Pre-Morbid Echocardiography, Beyond Clinical Risk Factors, Predict Need for
Hospitalizing in COVID-19 Patients?
Kothari J, Shah K, Daly T, Taha I, Sanaiyia P, Le M, Goel H, Shirani J/St.
Luke’s University Hospital- Bethlehem, Bethlehem, PA.

Study Objective: Age and medical co-morbidities are well-known risk factors for
need for hospitalization in COVID-19. It is unclear whether, and which, baseline
echocardiographic abnormalities may refine triage in the emergency department
beyond clinical risk factors, and hence help identify patients at higher risk for need for
hospitalization. We aimed to investigate echocardiographic variables associated with
risk of hospitalization in COVID-19 patients.

Methods: Electronic health records (EHR) were screened retrospectively to
identify adults with a positive COVID-19 test throughout St. Luke’s University
Health Network from March 1, 2020-October 31, 2020, and had a transthoracic
echocardiogram (TTE) within 15-180 days prior. Baseline medical co-morbidities and
echocardiographic variables were compared between patients stratified by
hospitalization. Continuous variables were compared using Student’s t-test or
Mann-Whitney U-test; categorical variables using the χ² test or Fisher’s Exact
test. Univariate logistic regression was used to select significant predictors for
multivariate analysis. Backward stepwise logistic regression was performed to
identify predictors of need for hospitalization, a surrogate for worse than mild disease.

Results: 193 patients met inclusion criteria (83 hospitalized). Mean TTE to
COVID19 positivity time was 86±52 days. Hospitalized patients were older and more
likely to suffer co-morbidities (Table 1). Age, medical co-morbidities and several
echocardiographic variables predicted need for hospitalization. Multivariante analysis
revealed age, coronary disease, COPD, and left atrial (LA) enlargement (≥4 cm)
independently predicting hospitalization with excellent discrimination (AUC 0.809,
figure 1). Estimates plots are depicted in Figure 2.

Conclusion: We present, to our knowledge the first cohort indicating that LA
enlargement, in a largely unselected population, is an independent marker of need for
hospitalization (a surrogate for worse than mild disease) among COVID-19 patients, and
could perhaps be considered in addition to clinical risk assessment in the ED, when
available. Being “upstream” from the left ventricle (LV), LA enlargement is an indicator of
sustained LV pressure and/or volume overload resulting from diverse etiologies, including
hypertension, valvular heart disease, and ischemic heart disease. Hence, LA size has long
been known to be an independent predictor of cardiovascular events, stroke, and all-cause
mortality among patients with underlying cardiovascular disease as well as the general
population. Importantly, LA diameter emerged as a more powerful predictor than LV
hyper trophy of COVID-19 severity, as indicated by need for hospitalization.
383 Home Oxygen for Discharged Pediatric Bronchiolitis Patients
Johnson M, Thompson J, King R, Demske A, Tuuri R, Swenson K/ University of New Mexico School of Medicine, Albuquerque, NM

Study Objectives: Bronchiolitis is a leading cause of hospitalization for children younger than 5 years of age and takes on both severe and non-severe forms. Existing studies suggest it may be safe and cost effective for a select group of hypoxemic but otherwise low-risk bronchiolitis patients to be discharged from the pediatric