دانشگاه علوم پزشکی سمنان
مرکز آموزشی پژوهشی درمانی کوثر
معاونت آموزشی و پژوهشی بیمارستان کوثر
کتابخانه

اخبار uptodate در یک نگاه

ترجمه،گردآوری و تدوین : س.کاشیان
کارشناس علم اطلاعات و دانش شناسی

آذر ۱۳۹۹ / نوامبر ۲۰۲۰

در پایگاه uptodate بخشی به نام What's new وجود دارد که ارائه دهنده آخرین اخبار حوزه پزشکی به تفکیک موضوعی است. این بخش شامل ۲۶ مقوله پزشکی است که هر کدام در برگیرنده مهم ترین اطلاعات جدید اضافه شده به پایگاه در هفته های اخیر می باشند.

در ادامه همه مقوله هایی که دارای اخبار و اطلاعات جدید در نیمه دوم ماه نوامبر هستند به ترتیب الفبای عنوان ارائه شده است.
موضوعات فهرست ذیل دارای اخبار جدید در این بازه زمانی هستند:

allergy and immunology
emergency medicine
geriatrics
hematology
infectious diseases
Oncology
pediatrics
pulmonary and critical care medicine
rheumatology
Surgery

What's new in allergy and immunology

ASTHMA AND COPD

COVID-19 and asthma (November 2020)

Asthma does not appear to be a strong risk factor for acquiring coronavirus disease 2019 (COVID-19; SARS-CoV-2) or to increase the risk of more severe disease or death for the majority of patients, based upon reassuring data from observational studies [1-7]. However, a few studies have found a higher rate of intubation and prolonged mechanical ventilation in adults with asthma [2,8]. We continue to concur with expert groups that patients with asthma should make every effort to avoid exposure to the SARS-CoV-2 virus and continue all regular medications necessary to maintain optimal asthma control, including long-acting bronchodilators, inhaled glucocorticoids, oral glucocorticoids, and biologic agents (eg, omalizumab, mepolizumab, and others). (See "An overview of asthma management", section on 'Advice related to COVID-19 pandemic'.)

IMMUNODEFICIENCY

Patient factors predisposing to severe COVID-19 (November 2020)

Type 1 interferons are critical to host defense in the earliest stages of viral infections. Two new studies have shown that genetic defects in the pathways generating type 1 interferons, or autoantibodies that neutralize those interferons, can predispose to life-threatening coronavirus disease 2019 (COVID-19). Various genetic defects governing the toll-like receptor 3 and interferon regulatory factor 7-dependent type I interferon immunity gene loci were identified in 3.5 percent of patients hospitalized with life-threatening COVID-19 [13]. The same group of researchers showed that another 10 percent of patients with severe COVID-19 (95 percent male) had high levels of autoantibodies to type 1 interferons and very low serum levels [14]. These findings suggest a basis for susceptibility to severe COVID-19 for some individuals. (See "Toll-like receptors: Roles in disease and therapy", section on 'Severe COVID-19'.)

What's new in emergency medicine

ADULT RESUSCITATION

2020 update for basic and advanced cardiac life support published (November 2020)

The 2020 American Heart Association (AHA) guidelines for basic and advanced life support in adults and the International Consensus on Cardiopulmonary Resuscitation (CPR) and

Emergency Cardiovascular Care with Treatment Recommendations (CoSTR) are available [1,2]. Unlike the pediatric update, which includes notable changes and new algorithms, the adult guidelines remain largely unchanged. Emphasis remains on providing excellent CPR and early defibrillation for appropriately shockable arrhythmias. A new algorithm outlining ACLS for the pregnant patient is provided. The effectiveness of double sequential defibrillation was not established, and it is not a suggested intervention. New evidence pertaining to the treatment of hypotension, use of supplemental oxygen, management of seizures, and implementation of targeted temperature management following successful resuscitation were incorporated into the guidelines. (See "Advanced cardiac life support (ACLS) in adults", section on 'Excellent basic life support and its importance'.)

PEDIATRIC RESUSCITATION

2020 AHA pediatric basic and advanced life support guidelines (November 2020)

The 2020 American Heart Association (AHA) guidelines for pediatric basic and advanced life support and the International Consensus on Cardiopulmonary Resuscitation (CPR) and Emergency Cardiovascular Care with Treatment Recommendations (CoSTR) are available [15,16]. The AHA guidelines continue to emphasize high-quality CPR (chest compressions with adequate rate, depth, full chest recoil with each compression, interruptions minimized during CPR, and excessive ventilation avoided). For infants and children receiving CPR with an advanced airway in place or who have a pulse but are undergoing rescue breathing, the recommended respiratory rate has been increased to 20 to 30 breaths per minute (1 breath every 2 to 3 seconds). For pediatric patients with cardiac arrest due to pulseless electrical activity or asystole, the initial dose of epinephrine should be given as soon as possible during CPR to improve the chance of survival. The updated AHA algorithms are available here. (See "Pediatric advanced life support (PALS)", section on 'AHA resuscitation guidelines' and "Pediatric basic life support (BLS) for health care providers".)

Updated neonatal resuscitative guidelines (November 2020)

The 2020 updated neonatal resuscitative guidelines from the American Heart Association/American Academy of Pediatrics/International Liaison Committee on Resuscitation (AHA/AAP/ILCOR) are available [17,18]. Unlike the pediatric update, which includes notable changes and new algorithms, the neonatal guidelines remain largely unchanged with no changes to the previously published neonatal resuscitative algorithm (algorithm 1). However, additional modifications based on new evidence include delay of cord clamping in uncomplicated deliveries while the infant is placed with the mother for skin-to-skin contact, confirmation of recommended initial oxygen concentration at the onset of resuscitation, and an increase in time before discontinuing resuscitative efforts from 10 to 20 minutes. (See "Neonatal resuscitation in the delivery room", section on 'Overview'.)

What's new in geriatrics

Vaccines to prevent SARS-CoV-2 (November 2020)
Vaccines to prevent SARS-CoV-2 infection are considered the most promising approach for controlling the pandemic. Several vaccine candidates have demonstrated immunogenicity without major safety concerns in early-phase human trials. Two mRNA vaccine candidates (BNT162b2 and mRNA-1273) have been reported in press-released results of large placebo-controlled trials to have 95 percent efficacy in preventing laboratory-confirmed symptomatic COVID-19 [10,11]. They also prevented severe COVID-19. An adenovirus vector vaccine (AZD1222) was reported to have 70 percent efficacy. Full trial reports are needed to critically assess the vaccines' impact and safety, including the effect on asymptomatic SARS-CoV-2 infection, which could have implications for transmission. (See "Coronavirus disease 2019 (COVID-19): Vaccines to prevent SARS-CoV-2 infection".)

What's new in hematology

LYMPHOMAS: HODGKIN AND NON-HODGKIN

Anti-CD30 CAR-T cell therapy for multiply relapsed or refractory Hodgkin lymphoma (November 2020)
Treatment with autologous T cells that bear a chimeric antigen receptor (CAR-T cells) targeted against CD30 hold promise for treatment of multiply relapsed or refractory Hodgkin lymphoma (r/r HL). Administration of anti-CD30 CAR-T cells along with lymphodepleting preconditioning therapy to 32 heavily-pretreated, evaluable patients achieved an objective response in nearly three quarters, including complete response in more than half, and 94 percent one-year survival [16]. Cytokine release syndrome (CRS) was reported in one quarter of patients (all grade 1) and there was no neurologic toxicity; persistent cytopenias were only grade ≥3 adverse effects. While we await longer-term follow-up and validating studies, anti-CD30 CAR-T cell therapy appears to be an effective and well-tolerated investigational approach for r/r HL. (See "Treatment of relapsed or refractory classic Hodgkin lymphoma", section on 'CAR-T cell therapy'.)

Tazemetostat in relapsed follicular lymphoma (June 2020, Modified November 2020)
Mutations in enhancer of zeste homolog 2 (*EZH2*) are seen in approximately 20 percent of follicular lymphoma (FL), and generally predict for responsiveness to treatments. The EZH2 inhibitor tazemetostat was recently approved by the US Food and Drug Administration for the treatment of patients with relapsed or refractory *EZH2* mutation positive FL who have received at least two prior systemic therapies, and for patients with relapsed or refractory FL who have no satisfactory alternative treatment options [17]. In a multicenter, open-label single arm phase 1/2 trial, responses were seen in the majority of patients with *EZH2* mutations and a smaller percentage of patients with *EZH2* wild-type FL [18]. Toxicities were mostly grade 1 or 2 and included nausea, diarrhea, and asthenia/fatigue.

Based on these results, we now offer tazemetostat in late first relapse to patients with *EZH2* mutation positive FL, and reserve it for subsequent relapse in patients without *EZH2* mutation. (See "Treatment of relapsed or refractory follicular lymphoma", section on 'Tazemetostat'.)

What's new in infectious diseases

COVID-19

Multisystem inflammatory syndrome in adults (MIS-A) associated with SARS-CoV-2 infection (November 2020)

During the COVID-19 pandemic, there have been reports of children with a multisystem inflammatory syndrome (MIS-C) that shares clinical features with Kawasaki disease and related conditions. Rarely, this syndrome has also been reported in adults and termed MIS-A. An analysis from the Center for Disease Control and Prevention (CDC) noted 27 reported cases of MIS-A, which were characterized by markedly elevated inflammatory markers and multiorgan dysfunction, particularly cardiac dysfunction, but without severe respiratory illness [1]. Other features have included gastrointestinal, dermatologic, and neurologic symptoms. Optimal treatment strategies have not been determined, but these patients have generally been managed similarly to children with MIS-C. (See "Coronavirus disease 2019 (COVID-19): Care of adult patients with systemic rheumatic disease", section on 'COVID-19 as a risk factor for rheumatologic disease'.)

Vaccines to prevent SARS-CoV-2 (November 2020)

Vaccines to prevent SARS-CoV-2 infection are considered the most promising approach for controlling the pandemic. Several vaccine candidates have demonstrated immunogenicity without major safety concerns in early-phase human trials. Two mRNA vaccine candidates (BNT162b2 and mRNA-1273) have been reported in press-released results of large placebo-controlled trials to have 95 percent efficacy in preventing laboratory-confirmed symptomatic COVID-19 [2,3]. They also prevented severe COVID-19. An adenovirus vector vaccine (AZD1222) was reported to have 70 percent efficacy. Full trial reports are needed to critically assess the vaccines' impact and safety, including the effect on asymptomatic SARS-CoV-2 infection, which could have implications for transmission. (See "Coronavirus disease 2019 (COVID-19): Vaccines to prevent SARS-CoV-2 infection".)

Monoclonal antibody treatment for outpatients with mild to moderate COVID-19 (November 2020)

Two monoclonal antibody therapies targeting SARS-CoV-2 (bamlanivimab and the combination casirivimab-imdevimab) have received emergency use authorization from the US Food and Drug Administration (FDA) for non-hospitalized patients who have mild to moderate COVID-19 but have certain risk factors for severe disease [4,5]. Efficacy of these agents has been described in preliminary reports of randomized trials of adult outpatients with mild to moderate COVID-19 [6,7]. Among subsets of patients at risk for severe disease,

bamlanivimab reduced the risk of subsequent hospitalization (4 versus 15 percent with placebo) and casirivimab-imdevimab reduced the risk of subsequent emergency room visit or hospitalization (3 versus 9 percent with placebo); however, detailed statistical analyses for these outcomes were not reported. Each is administered as a single intravenous dose, given as soon as possible after a positive SARS-CoV-2 test within 10 days of symptom onset. Limited availability of bamlanivimab is anticipated, and furthermore, the intravenous formulations pose operational challenges for administration. (See "Coronavirus disease 2019 (COVID-19): Outpatient evaluation and management in adults", section on 'Monoclonal antibody treatment'.)

IMMUNOCOMPROMISED HOSTS

Patient factors predisposing to severe COVID-19 (November 2020)

Type 1 interferons are critical to host defense in the earliest stages of viral infections. Two new studies have shown that genetic defects in the pathways generating type 1 interferons, or autoantibodies that neutralize those interferons, can predispose to life-threatening coronavirus disease 2019 (COVID-19). Various genetic defects governing the toll-like receptor 3 and interferon regulatory factor 7-dependent type I interferon immunity gene loci were identified in 3.5 percent of patients hospitalized with life-threatening COVID-19 [30]. The same group of researchers showed that another 10 percent of patients with severe COVID-19 (95 percent male) had high levels of autoantibodies to type 1 interferons and very low serum levels [31]. These findings suggest a basis for susceptibility to severe COVID-19 for some individuals. (See "Toll-like receptors: Roles in disease and therapy", section on 'Severe COVID-19'.)

What's new in oncology

GENITOURINARY ONCOLOGY

Long term survival with pembrolizumab plus axitinib in metastatic clear cell renal carcinoma (November 2020)

The combination of pembrolizumab plus axitinib is an accepted treatment option for patients with metastatic renal cell carcinoma (RCC), but durable survival outcomes have not been previously established. In extended follow-up of a randomized phase III trial (KEYNOTE-426) conducted in approximately 900 patients with treatment-naïve metastatic clear cell RCC, compared to sunitinib, pembrolizumab improved 24-month overall survival (74 versus 65 percent), demonstrated higher objective (60 versus 40 percent) and complete (9 versus 3 percent) response rates, and was well-tolerated [31]. These data continue to confirm a survival benefit for pembrolizumab plus axitinib in those with treatment-naïve metastatic RCC, and this combination remains one of our preferred initial treatment options in this population. (See "Systemic therapy of advanced clear cell renal carcinoma", section on 'Pembrolizumab plus axitinib'.)

What's new in pediatrics

NEONATOLOGY

Updated neonatal resuscitative guidelines (November 2020)

The 2020 updated neonatal resuscitative guidelines from the American Heart Association/American Academy of Pediatrics/International Liaison Committee on Resuscitation (AHA/AAP/ILCOR) are available [8,9]. Unlike the pediatric update, which includes notable changes and new algorithms, the neonatal guidelines remain largely unchanged with no changes to the previously published neonatal resuscitative algorithm (algorithm 1). However, additional modifications based on new evidence include delay of cord clamping in uncomplicated deliveries while the infant is placed with the mother for skin-to-skin contact, confirmation of recommended initial oxygen concentration at the onset of resuscitation, and an increase in time before discontinuing resuscitative efforts from 10 to 20 minutes. (See "Neonatal resuscitation in the delivery room", section on 'Overview'.)

EMERGENCY MEDICINE

2020 AHA pediatric basic and advanced life support guidelines (November 2020)

The 2020 American Heart Association (AHA) guidelines for pediatric basic and advanced life support and the International Consensus on Cardiopulmonary Resuscitation (CPR) and Emergency Cardiovascular Care with Treatment Recommendations (CoSTR) are available [21,22]. The AHA guidelines continue to emphasize high-quality CPR (chest compressions with adequate rate, depth, full chest recoil with each compression, interruptions minimized during CPR, and excessive ventilation avoided). For infants and children receiving CPR with an advanced airway in place or who have a pulse but are undergoing rescue breathing, the recommended respiratory rate has been increased to 20 to 30 breaths per minute (1 breath every 2 to 3 seconds). For pediatric patients with cardiac arrest due to pulseless electrical activity or asystole, the initial dose of epinephrine should be given as soon as possible during CPR to improve the chance of survival. The updated AHA algorithms are available here. (See "Pediatric advanced life support (PALS)", section on 'AHA resuscitation guidelines' and "Pediatric basic life support (BLS) for health care providers".)

NEPHROLOGY AND UROLOGY

US Preventive Services Task Force: Pediatric BP screening (November 2020)

The US Preventive Services Task Force (USPSTF) recently reaffirmed their previous conclusion that there remains insufficient evidence to support for or against blood pressure (BP) screening in asymptomatic children and adolescents based on a systematic reevaluation of the available evidence [53]. In contrast, the American Academy of Pediatrics,

the American Heart Association, the National Heart, Lung, and Blood Institute, and the European Society of Hypertension recommend BP screening in children and adolescents based on direct evidence of BP tracking from childhood to adulthood and indirect evidence that elevated BP in children is associated with subclinical cardiovascular disease. We concur with these societal guidelines and continue to recommend routine BP screening for children and adolescents. (See "Definition and diagnosis of hypertension in children and adolescents", section on 'Societal and governmental recommendations'.)

What's new in pulmonary and critical care medicine

ASTHMA

COVID-19 and asthma (November 2020)

Asthma does not appear to be a strong risk factor for acquiring coronavirus disease 2019 (COVID-19; SARS-CoV-2) or to increase the risk of more severe disease or death for the majority of patients, based upon reassuring data from observational studies [1-7]. However, a few studies have found a higher rate of intubation and prolonged mechanical ventilation in adults with asthma [2,8]. We continue to concur with expert groups that patients with asthma should make every effort to avoid exposure to the SARS-CoV-2 virus and continue all regular medications necessary to maintain optimal asthma control, including long-acting bronchodilators, inhaled glucocorticoids, oral glucocorticoids, and biologic agents (eg, omalizumab, mepolizumab, and others). (See "An overview of asthma management", section on 'Advice related to COVID-19 pandemic'.)

What's new in rheumatology

DRUG THERAPY

Tocilizumab does not increase serious infections in patients with severe COVID-19 (November 2020)

Elevated pro-inflammatory cytokines such as interleukin 6 (IL-6) are associated with critical and fatal coronavirus disease 2019 (COVID-19), leading to investigational use of IL-6 inhibitors including tocilizumab to treat severe COVID-19, although preliminary results show no benefit. The risk of serious infections, including opportunistic infections, is increased in patients with other diseases treated with IL-6 inhibitors, and observational studies have suggested a similar risk for tocilizumab-treated patients with COVID-19. However, this finding was not confirmed in several randomized trials, in which fewer serious infections were seen in hospitalized patients receiving tocilizumab compared with placebo [2-4]. Despite lack of a clear signal for increased risk of infections in patients with COVID-19 treated with IL-6 inhibitors, clinicians should still monitor these patients closely for serious infections, particularly those with severe disease who have received other immunosuppressive agents.

(See "Interleukin 6 inhibitors: Biology, principles of use, and adverse effects", section on 'Infection'.)

OTHER RHEUMATOLOGY

Multisystem inflammatory syndrome in adults (MIS-A) associated with SARS-CoV-2 infection (November 2020)

During the COVID-19 pandemic, there have been reports of children with a multisystem inflammatory syndrome (MIS-C) that shares clinical features with Kawasaki disease and related conditions. Rarely, this syndrome has also been reported in adults and termed MIS-A. An analysis from the Center for Disease Control and Prevention (CDC) noted 27 reported cases of MIS-A, which were characterized by markedly elevated inflammatory markers and multiorgan dysfunction, particularly cardiac dysfunction, but without severe respiratory illness [15]. Other features have included gastrointestinal, dermatologic, and neurologic symptoms. Optimal treatment strategies have not been determined, but these patients have generally been managed similarly to children with MIS-C. (See "Coronavirus disease 2019 (COVID-19): Care of adult patients with systemic rheumatic disease", section on 'COVID-19 as a risk factor for rheumatologic disease'.)

What's new in surgery

COLORECTAL SURGERY

Antibiotic therapy versus appendectomy for appendicitis (November 2020)

Antibiotic therapy has been proposed as an alternative to surgery for the treatment of appendicitis. In the CODA randomized trial, the 30-day general health status of those treated with antibiotics was noninferior to those who underwent appendectomy [7]. However, 29 percent of the antibiotic treatment group underwent appendectomy by 90 days, including 41 percent of those with an appendicolith and 25 percent of those without an appendicolith. Given this risk that appendectomy will be needed and that laparoscopic appendectomy is well-tolerated, we continue to suggest surgery for uncomplicated appendicitis; patients who are unfit for or refuse surgery can be treated with antibiotics. (See "Management of acute appendicitis in adults", section on 'Evidence for nonoperative management'.)