Year in Review
Key Clinical Updates in CMDT 2022

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### YEAR IN REVIEW: KEY CLINICAL UPDATES IN CMDT 2022

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<th>Topic</th>
<th>New Advances Affecting Clinical Practice*</th>
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| **WARTS**
Page 143 | • Sinecatechins (10% or 15%) is FDA approved for the treatment of anogenital warts. Application three times daily for 16 weeks achieves clearance rates from 40% to 81%, with the 15% formulation resulting in higher efficacy. Jung JM et al. Br J Dermatol. [PMID: 31675442] |
| **AGE-RELATED MACULAR DEGENERATION**
Page 185 | • Brovilucumb, an inhibitor of vascular endothelial growth factor, has been associated with intraocular inflammation and occlusive retinal vasculitis, resulting in irreversible vision loss in some patients. Baumal CR et al. Ophthalmology. [PMID: 32344075] |
| **ADVERSE OCULAR EFFECTS OF SYSTEMIC DRUGS**
Page 197 | • Pentosan polysulfate (used to treat interstitial cystitis) has been associated with progressive vision loss due to maculopathy. Patients who receive pentosan polysulfate should be monitored with annual eye examinations. Pearce WA et al. Ophthalmology. [PMID: 29801663] |
| **ASTHMA**
Page 243 | • The pathophysiology of asthma is heterogeneous, but a division into T2-high and T2-low endotypes (marked by high and low levels of classic Th2 cytokines, including IL-4, IL-5, and IL-13, respectively) has been shown to be important regarding the selection of therapies. Schoettler N et al. Chest. [PMID: 31678077] |
| **ASTHMA**
Pages 243 | • Allergic asthma falls into the T2-high endotype, as do late-onset T2-high asthma and aspirin/NSAID-associated respiratory disease. T2-low asthma phenotypes include nonallergic asthma, which tends to occur in adults and be marked by neutrophilic inflammation and variable response to standard therapies. Schoettler N et al. Chest. [PMID: 31678077] |
| **BRONCHIOLITIS**
Page 266 | • Azithromycin may be used to treat diffuse panbronchiolitis; it may also slow down the progression of bronchiolitis obliterans syndrome in lung transplant recipients. Gan CT et al. BMJ Open Respir Res. [PMID: 31673366] |
| **COMMUNITY-ACQUIRED PNEUMONIA**
Page 270 | • Procalcitonin is not recommended as a “rule-out” test for bacterial pneumonia; studies have not found a threshold at which bacterial pneumonia can be reliably distinguished from viral pneumonia based on procalcitonin levels. Empiric antibacterial agents are recommended regardless of procalcitonin level at time of presentation. Ebell MH et al. Acad Emerg Med. [PMID: 32100377] |
| **COMMUNITY-ACQUIRED PNEUMONIA**
Page 272 | • Based on limited data and because of the potential for complications (eg, hyperglycemia), the Infectious Diseases Society of America/American Thoracic Society guidelines recommend against corticosteroids in the treatment community-acquired pneumonia (CAP) of any severity. Corticosteroids are recommended for patients with CAP who may also have severe septic shock, acute exacerbation of asthma or chronic obstructive pulmonary disease, or adrenal insufficiency. Metlay JP et al. Am J Respir Crit Care Med. [PMID: 31572559] |
| **PULMONARY TUBERCULOSIS**
Page 280 | • In view of the rapidity of rifampin resistance identification, the World Health Organization issued continued guidance in 2020 that rapid molecular testing is the ideal initial test for diagnosis and resistance profiling in persons in whom pulmonary or extrapulmonary tuberculosis is suspected. https://www.who.int/health-topics/tuberculosis/https://www.who.int/health-topics/tuberculosis/ |
| **PULMONARY VENOUS THROMBOEMBOLISM**
Page 300 | • Direct-acting oral anticoagulants are recommended as first-line anticoagulation for most patients. Konstantinides SV et al. Eur Heart J. [PMID: 31473594] |
| **PULMONARY VENOUS THROMBOEMBOLISM**
Page 300 | • Discontinuation of anticoagulation may be considered after 3 months for patients
  – With major transient/reversible risk factors (such as fracture of lower limb; hip or knee surgery)
  – Who were hospitalized because of heart failure, atrial fibrillation, or myocardial infarction. Kearon C et al. Blood. [PMID: 31917402] |

*See chapter for further details and references. (continued on following page)
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| **PULMONARY VENOUS THROMBOEMBOLISM**      | • Guidelines support systemic thrombolysis for high-risk or massive pulmonary embolism (PE) (hemodynamically unstable) with low risk of bleeding.  
  • Intermediate-risk or submassive PE patients have a significant decrease in incidence of hemodynamic collapse but do not have a mortality benefit with thrombolytic therapy.  
  • They do, however, have an increase in major hemorrhagic complications, including intracranial hemorrhage.  
  Konstantinides SV et al. Eur Heart J. [PMID: 31473594] |
| **PULMONARY HYPERTENSION**               | • A 2020 expert consensus survey has provided recommendations for treatment using oral prostacyclin analogs.  
  McLaughlin VV et al. Chest. [PMID: 31738929] |
| **RADIATION PNEUMONITIS**                | • Months to years after radiation therapy, an occasional patient will experience “radiation recall,” an inflammatory reaction in the radiated region after treatment with immune checkpoint inhibitors.  
  Teng F et al. BMC Med. [PMID: 32943072] |
| **PNEUMOTHORAX**                         | • A 2020 study demonstrated that a moderate to large pneumothorax in a stable patient (no oxygen requirement, no limitation to ambulation, and no increase in size of pneumothorax over 4 hours of monitoring) who is reliable can be managed without intervention.  
| **COARCTATION OF THE AORTA**             | • The 2020 European Society of Cardiology guidelines suggest that stenting is appropriate if the patient is normotensive but has a peak gradient of > 20 mm Hg (class IIa) or if angiography shows stenosis is > 50% (class IIb).  
  Baumgartner H et al. Eur Heart J. [PMID: 32860028] |
| **ATRIAL SEPTAL DEFECT & PATENT FORAMEN OVALE** | • The 2020 European Society of Cardiology (ESC) guidelines add the pulmonary vascular resistance (PVR) to their criteria and consider it a class IIa indication if the PVR is between 3 Wood units and 5 Wood units; the guidelines preclude the use of closure if the PVR is ≥ 5 Wood units.  
  • Rather than using acute testing, ESC guidelines favor bringing the patient back to the catheterization laboratory for retesting while on pulmonary vasodilators to see if the PVR can be reduced to < 5 Wood units.  
  • The ESC guidelines also suggest considering fenestrated closure in the face of pulmonary hypertension.  
  • The use of bosentan or sildenafil is recommended if the PVR is > 5 Wood units and there is a right to left shunt.  
  Baumgartner H et al. Eur Heart J. [PMID: 32860028] |
| **ATRIAL SEPTAL DEFECT & PATENT FORAMEN OVALE** | • A 2020 update from the American Academy of Neurology guideline subcommittee reaffirms no change in the policy that states patients < 55 years with cryptogenic stroke/transient ischemic attack (TIA) and no other identifiable cause except for the presence of a patent foramen ovale (PFO) should still be considered for PFO closure.  
  • The presence of a “floppy atrial septum - atrial septal aneurysm” has been associated with a higher risk of recurrent stroke/TIA in patients with cryptogenic stroke/TIA.  
  Mesul SR et al. Neurology. [PMID: 12350056] |
| **MITRAL REGURGITATION**                 | • Transcatheter edge-to-edge repair is an option in symptomatic patients at higher surgical risk regardless of whether the mitral regurgitation is primary or secondary.  
  • Patients with functional chronic mitral regurgitation may improve with biventricular pacing and guideline-directed management and therapy.  
  Otto CM et al. J Am Coll Cardiol. [PMID: 33342587] |
| **AORTIC STENOSIS**                      | • Surgery is recommended for patients < 65 years or with a life expectancy of > 20 years.  
  • Transcatheter aortic valve replacement (AVR) is recommended for all patients > 80 years.  
  • Either surgical AVR or transcatheter AVR can be considered for all patients 65–80 years old.  
  Otto CM et al. J Am Coll Cardiol. [PMID: 33342587] |
| **ATRIAL FIBRILLATION**                  | • In patients with recent-onset atrial fibrillation (< 1 year), the EAST-AFNET 4 trial found that rhythm control with antiarrhythmic medication or catheter ablation is associated with a lower risk of death from cardiovascular causes, stroke, or hospitalization for heart failure.  

*See chapter for further details and references.