Q: What are the updates as they relate to Advanced Cardiovascular Life Support (ACLS)?
A: The 2019 Focused Updates on Adult ACLS include the following:

- Either bag-mask ventilation or an advanced airway strategy may be considered during CPR for adult cardiac arrest in any setting. If an advanced airway is used:
  o The supraglottic airway can be used for adults with OHCA in settings with low tracheal intubation success rate or minimal training opportunities for endotracheal tube placement.
  o Either the supraglottic airway or endotracheal tube can be used for adults with OHCA in settings with high tracheal intubation success rates or optimal training opportunities for endotracheal tube placement.
  o Either the supraglottic airway or endotracheal tube can be used in the in-hospital setting by expert providers trained in these procedures.
  o Frequent experience or frequent retraining is recommended for providers who perform endotracheal intubation.

- Emergency medical services systems that perform prehospital intubation should provide a program of ongoing quality improvement to minimize complications and to track overall supraglottic airway and endotracheal tube placement success rates.

- Epinephrine should be administered to patients in cardiac arrest 1 mg every 3 to 5 minutes, based on clinical trials.

- With respect to timing, for cardiac arrest with a non-shockable rhythm, it is reasonable to administer epinephrine as soon as feasible. For cardiac arrest with a shockable rhythm, it may be reasonable to administer epinephrine after initial defibrillation attempts have failed.

- While there is insufficient evidence to recommend the routine use of Extracorporeal CPR (ECPR) for patients with cardiac arrest, ECPR may be considered for selected patients as rescue therapy when conventional CPR efforts are failing in settings in which it can be expeditiously implemented and supported by skilled providers.
Q: What are the updates as they relate to Systems of Care and Continuous Quality Improvement?
A: The 2019 Focused Updates on Systems of Care and Continuous Quality Improvement include:

Dispatcher-assisted CPR (DA-CPR) for adults
- Emergency dispatch centres should offer CPR instructions and empower dispatchers to provide instructions for adult patients in cardiac arrest.
- Dispatchers should instruct callers to initiate CPR for adults with suspected out-of-hospital cardiac arrest.

Potential role of cardiac arrest centres (CACs)
- A regionalized approach to post–cardiac arrest care that includes transport of resuscitated patients directly to specialized cardiac arrest centres is reasonable when comprehensive post–cardiac arrest care is not available at local facilities.

Q: What are the new updates as they relate to Pediatric Basic Life Support and Pediatric Advanced Life Support (PALS)?
A: The 2019 Focused Updates on Pediatric Basic Life Support and Pediatric Advanced Life Support include the following:

- Emergency medical dispatch centres should offer dispatcher-assisted CPR instructions for presumed pediatric cardiac arrest, and emergency dispatchers should provide CPR instructions for pediatric cardiac arrest when no bystander CPR is in progress.

- Bag-mask ventilation is reasonable compared with advanced airway interventions (endotracheal intubation or supraglottic airway) in the management of children during cardiac arrest in the out-of-hospital setting.

- Continuous measurement of core temperature during targeted temperature management (TTM) is recommended.

- For infants and children between 24 hours and 18 years of age who remain comatose after out-of-hospital or in-hospital cardiac arrest, it is reasonable to use either targeted temperature management 32°C to 34°C followed by targeted temperature management 36°C to 37.5°C or to use targeted temperature management 36°C to 37.5°C.
Q: What are the new updates as they relate to Neonatal Life Support?
A: The 2019 Focused Updates on Neonatal Life Support include the following:

- For term and late-preterm newborns (35 weeks or more of gestation) receiving respiratory support at birth, the initial use of 21% oxygen is reasonable.

- One hundred percent oxygen should not be used to initiate resuscitation because it is associated with excess mortality.

- For preterm newborns (less than 35 weeks of gestation) receiving respiratory support at birth, it may be reasonable to begin with 21% to 30% oxygen with subsequent oxygen titration based on pulse oximetry.

Q: What are the new updates as they relate to treatment of presyncope?
A: The 2019 Focused Updates on treatment of presyncope include:

- If a person experiences signs or symptoms of presyncope (pallor, sweating, light-headedness, visual changes, and weakness) of vasovagal or orthostatic origin, the priority for that person is to maintain or assume a safe position, such as sitting or lying down. Once the person is in a safe position, it can be beneficial for that person to use physical counterpressure manoeuvres to avoid syncope.

- If a first aid provider recognizes presyncope of suspected vasovagal or orthostatic origin in another individual, it may be reasonable for the first aid provider to encourage that person to perform physical counterpressure manoeuvres until symptoms resolve or syncope occurs. If no improvement occurs within 1 to 2 minutes, or if symptoms worsen or reoccur, providers should initiate a call for additional help.

- If there are no extenuating circumstances, lower-body physical counterpressure manoeuvres are preferable to upper-body and abdominal physical counterpressure manoeuvres.

- The use of physical counterpressure manoeuvres is not suggested when symptoms of a heart attack or stroke accompany presyncope.

Q: Will Heart & Stroke Resuscitation products be changing? Will I need to purchase new products?
A: For these 2019 Focused Updates, there will be no changes to products and no new materials are required.
Q: Is there any new guidance for Heart & Stroke Instructors based on the 2019 Focused Updates?
A: For these 2019 Focused Updates, there will be no changes to training.

Q: Why did the AHA and Heart & Stroke move to a continuous evidence evaluation process and more frequent focused updates?
A: Until 2017, the AHA Guidelines for CPR and ECC had been updated every five years. In 2017, the International Liaison Committee on Resuscitation (ILCOR), the AHA and Heart & Stroke moved to a continuous evidence evaluation process and more frequent focused updates. Continuous evidence evaluation allows the rigor of a comprehensive review and expert consensus in as close to real time as possible.

Q: Does this mean that my courses and materials may change more frequently than every five years?
A: Product and training updates will depend on the nature of the changes in the focused updates, and Heart & Stroke works with the American Heart Association to review how new recommendations should be implemented as they arise. Heart & Stroke does not expect to create all new products with every focused update.

Q: When will these recommendations take effect?
A: The 2019 American Heart Association Focused Updates to the AHA Guidelines for CPR and ECC – Heart & Stroke Edition were published on November 14, 2019.

Q: How can I get a copy of the new 2019 Focused Updates?

Q: Is the Heart & Stroke edition of the Highlights of the 2019 Focused Updates available in French?
A: Yes, the Heart & Stroke edition of the Highlights of the 2019 Focused Updates is available in French and can be viewed on the Heart & Stroke website at: https://www.heartandstroke.ca/get-involved/learn-cpr/cpr-guidelines and on the Heart & Stroke Resuscitation Portal at www.cpr.heartandstroke.ca. The American Heart Association has also provided the AHA edition in 17 different languages. Those languages are Arabic, Bahasa (Malay), German, Hebrew, Indonesian, Italian, Japanese, Kazakh, Korean, Polish, Portuguese (Brazilian), Russian, Simplified Chinese, Spanish (International), Thai, Traditional Chinese, and Vietnamese. The AHA edition is available on the ECC Guidelines website.