|  |  |  |
| --- | --- | --- |
| **Table 3: Brief Summary Points** |  |  |
| **Objective** | **Observations** | **Suggestions** |
| Front desk: Early emergency  recognition | - Delayed with nonspecific complaints (colds, gastroenteritis)  - Quicker with specific concerns (trouble breathing, lethargic) | - Ask about patient concerns in addition to insurance/paperwork  - Defer paperwork if emergent  - Staff should look at every patient |
| Front desk: Quickly alert staff for emergency help | - Often lacked plan for front desk to alert staff for assistance  - Options depend on office layout and the response chosen depended on the front desk receptionist and their level of panic | - Have parent bring child with staff immediately towards patient rooms while calling out for help  - Use statements such as “I need help, he has trouble breathing” which focuses response team |
| Rapid transfer from waiting room to resuscitation room | - Delay if panicked and unsure of appropriate actions  - Delay if obtaining paperwork  - Delay if no preplanned destination  - Quickest when front desk called for staff while walking back | - Immediately walk patient back looking for open room and staff while calling for help  - Obtain history, paperwork, and insurance questions during resuscitation. |
| Designate a first choice for resuscitation room | - Difficult to know where to go in an emergency without a plan | - Have a plan to quickly decide where to take the patient rapidly such as a procedure room or rooms not in use for that clinic day  - Utilize mobile emergency carts to initiate resuscitation anywhere |
| Equipment for first 15 minutes of resuscitation should be quickly available and utilized | - Teams were not familiar with the organization or contents of emergency kits, cabinets, or carts.  - Teams were unsure of how to use the AED  - Teams did not recognize the differences between adult and pediatric AED pads  - Most staff were not familiar with an IO (intraosseous needle)  - No glucometer utilized  - Pieces of equipment missing, broken, expired, or did not fit together  - Masks/BVM not always hooked up to oxygen when changed from one system to another  - Some teams struggled with IV tubing set up and priming for IVF | - Everyone needs to review the contents of the emergency kits, cart, and cabinets, suggest monthly  - Staff should be taught about the emergency supplies  - Staff should routinely practice using the AED  - Make sure all equipment is in working order with all pieces  - Consider complicated patient needs (ETT for trach emergency)  - Stock multiple sizes of equipment  - Assure oxygen is always attached and flowing  - Recommend IV and IO practice  - Designate MD and staff to maintain emergency equipment  - Save and label expired equipment to use for practice |
| **Objective** | **Observations** | **Suggestions** |
| Medications for first 15 minutes of resuscitation should be quickly available and utilized | - Providers struggled to do calculations for dosing during panic and multi-tasking, led to wrong doses and/or delayed intervention  - Resources on the emergency cart for dosing and interventions were often not utilized because staff were unaware of having them or not familiar with using them  - Confusion and time delay with some medications because requested using common names (Ativan) but drugs labeled with medical name (Lorazepam)  - No IV/IM midazolam 5mg/ml (some had 2mg/2ml but that limits IN dose to less than 10kg patients)  - No antibiotic for septic shock  - Delay when staff was looking for epinephrine but did not know which one to obtain  - Often provider request was nonspecific “Grab Epi please”. Time delays guessing which to obtain, sometimes delay figuring out wrong was grabbed, or error because wrong one given  - Staff unsure how to prepare or administer Epinephrine 1:10,000  - Confusion with Epinephrine concentrations and calculations  - Oxygen flow variably increased as intervention increased, so patient ventilated but not adequately oxygenated  - Masks/BVM not always hooked up to oxygen when changed from one system to another | - Simplify resources to drug and algorithm books specific for the office, with doses precalculated  - Review office resources such as drug and algorithm books so they are familiar in an emergency  - Have list of all medications (medical and common names) with their locations in cart and office  - Consider stocking Midazolam 5mg/ml IV/IM given IN with nasal aspirator for seizure. Does not require refrigeration so keep on cart  - Remember antibiotic for severe septic shock, and accommodate for time to prepare and administer  - Provider should clearly state requested medication and specifics (Epinephrine 1:10,000) for faster access and less medication error  - Practice assembly of Epinephrine 1:10,000 (pop off yellow caps)  - Check you are attached to oxygen and tank valve is correct liters per minute flow (NC up to 4L, FM 5+L, NRB 10+L, BVM 15L)  - Designated physician and NP/MA/manager to maintain emergency medications  - Replace expired medications, save and label for practice if appropriate  - Routinely review medications for appropriateness: Do you have only what you need? What can be discarded, what needs to be purchased |
| **Objective** | **Observations** | **Suggestions** |
| IV or IO: Rapid placement and initiation of IV fluids when needed | - Variable knowledge of where to find IV equipment and IV fluid  - Providers were unsure of their skills placing the IO or IV  - Some staff not familiar with IV tubing set up, priming lines, administering IV fluids  - Variable amounts of sterile normal saline in the offices | - Create an IV start kit of supplies  - Practice IV/IO placement, IV fluid priming and administration  - Team should practice how to rapidly administer boluses (push-pull, stopcock, pressure cuff on bag, squeeze bag)  - Have at least a liter of sterile normal saline available for IV bolus |
| Timely activation of appropriate EMS team | - Teams focus on resuscitation so often there is a delay calling EMS  - Front desk not sure when to call EMS and do not want to interrupt resuscitation to ask  - Front desk not sure which team should be activated  - Some offices have intrinsic delays for EMS arrival such as hidden location, multiple similar appearing buildings nearby, elevator access delay, difficult access after hours (must know how to use key pad) | - Front desk inquire about contacting EMS, prompting team early for its activation  - Recorder has predesigned codesheet with prompt to contact and record time of EMS activation  - Codesheet has prompts for obtaining important patient information to give EMS  - Staff should clarify building, hold elevator so immediately available for EMS and guide them to the patient room to decrease delays |
| Obtaining all vital signs and noting trends of change | - Blood pressure and temperature were variably obtained, often not repeated to see trend  - Noticing vital sign changes was delayed | - Utilize predesigned codesheet to prompt obtaining all vital signs  - Recorder should record vital signs over time and report changes |
| Overcome mind blank and task overload which occur during time of crisis with emergent resuscitation | - Providers experience mind blank of necessary interventions during panic of resuscitation  - Providers struggle to do multiple tasks and think of interventions  - Some team members were overwhelmed with tasks  - Providers don’t know what team members are able to do or what they are comfortable doing  - Struggle with using office resources and interpreting them during emergency | - Divide up tasks and have roles  - Consider low staff hours, roles and priorities  - Avoid task overload, each person only does 1-2 tasks at a time  - Utilize office algorithms which prompt interventions and overcome mind blank. They allow staff to anticipate and prepare needed medications and supplies  - Each provider must be familiar with the office emergency cart, medications, equipment, and procedures. |
| **Objective** | **Observations** | **Suggestions** |
| Continuous, effective CPR (cardiopulmonary resuscitation) | - Compressions usually started once noticed loss of pulse  - Compressions often continued for bradycardia (heart rate less than 60)  - Backboard rarely utilized for compressions. Most did not know it was needed. Options exist in office (backboard on cart, papoose)  - Stool often not used for compressor  - Variable memory of correct compressions : ventilations ratio  - PEA (Pulseless Electrical Activity) was often not recognized  - Self-inflating bags sometimes incorrectly used for blow-by  - Some struggled to provide adequate mask seal and positioning  - Providers often checked and corrected mask seals, ventilations, compressions  - Staff struggled with access to the patient because most beds are not realistically movable and are against the wall. The patient was often not repositioned on the bed to increase access  - There is a time delay with application of AED (automated external defibrillator) and allowing it to move through its steps  - Often did not recognize adult versus pediatric pads for AED  - Teams were unsure of how to use the AED (automated external defibrillator) | - Everyone should practice effective compressions  - Utilize a backboard to improve effectiveness of compressions  - Use a stool to improve effective, more comfortable compressions  - Compressions : ventilations ratio is 15:2 for team  - Consider PEA (Pulseless Electrical Activity)   * Always check pulses even if heart activity auscultated * Consider with pulse oximeter poor reading or no reading * Ventilations, compressions, and epinephrine are essential.   - Self-inflating bags should not be used as blow-by, as they require the patient to overcome the closed valve to receive oxygen. Must deliver positive pressure ventilation assistance (squeeze bag)  - Anyone assigned to airway should practice applying an effective mask seal  - Two people for more effective bag mask ventilation if staffing allows. One person designated to effective mask seal, other to bag compression  - Move the bed away from the wall or rotate patient to increase area for patient access  - Be aware that there is a time requirement for AED to move through preprogrammed steps and plan accordingly  - Learn about AED and its use |