

Interfacility Transport Resource Document 2021

Interfacility patient transfers often involve a complicated set of medical decisions. Referring facilities must ensure that patients receive appropriate care during interfacility transfer and upon discharge. Emergency medical service providers deliver a wide range of transport medical services. The specific types of skills and medicines that can be administered during transport depend upon established statewide protocols, clinical guidelines, and staffing. This document is intended to assist referring and receiving physicians and other hospital staff with determining which type of transport is best suited to an individual patient's need. The Pennsylvania Department of Health currently licenses ambulances at the basic life support (BLS), intermediate advanced life support (IALS), advanced life support (ALS), critical care transport (CCT), and air medical transport levels. Each tier of transport medical care is authorized to administer specific medications and perform particular skills.

Basic Life Support (BLS)

A BLS ambulance is staffed by at least one emergency medical technician (EMT) and an EMS Vehicle Operator (EMSVO). EMTs provide non-invasive monitoring of vital signs and are trained to administer oxygen, control bleeding and stabilize fractures. EMTs do not provide intravenous/intraosseous therapy. BLS transports are for stable patients who do not require medications or cardiac monitoring.

Intermediate Advanced Life Support (IALS)

Advanced Emergency Medical Technicians (AEMTs) provide basic EMS and a limited set of ALS. AEMTs perform all the BLS skills listed above as well as use of alternative rescue airways, placement of a saline lock IV, IO placement, obtaining but not interpreting a 12 Lead ECG, and blood glucose monitoring. IALS transports are indicated for stable patients who do not require medications or monitoring beyond simple ALS interventions such as IV fluid administration.

Advanced Life Support (ALS)

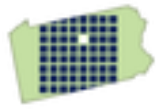
ALS ambulances are staffed with at least one ALS provider (paramedic, prehospital registered nurse, or prehospital physician extender (i.e., physician assistant) or prehospital EMS physician). ALS personnel are trained to perform and interpret 12-lead ECGs, administer intravenous fluids, administer specific infusions, and provide cardiac monitoring.

Critical Care Transport (Paramedic)

State licensed CCT services staff ambulances with two ALS providers in addition to an EMSVO, of which one must be trained in an expanded scope of critical care transport. CCT services provide additional capabilities beyond the regular ALS scope of practice under a set of expanded statewide protocols, but for certain medications the CCT ambulance staff must include a PHRN, PHPE, or PHP. CCT crews transport patients requiring some forms of mechanical ventilation, chest tubes to suction or water seal, and certain infusions not routinely carried on an ALS ambulance.

Air Ambulance and CCT with PHRN/PHPE/PHP operated by Air Ambulance Agencies

Air Ambulance services provide air or ground transport with an expanded scope of practice determined by agency-specific protocols (air ambulance agencies) approved through the Department of Health. These teams are staffed with at least two advanced personnel (most commonly teams of prehospital RNs and paramedics) trained as critical care providers. Capabilities of these critical care teams include interventions above the level of a Critical Care Paramedic, including the performance of rapid sequence intubation, administration of additional medications above the paramedic level, initiation of blood products, or use of advanced modes of ventilation. These teams also provide enhanced experience and judgment in caring for complicated critical care patients, which are best suited to interfacility transfers involving critically ill patients that require multiple advanced treatments – like mechanical ventilation, infusions of multiple medications, use of vasoactive medications, and/or administration of medications that are beyond the scope of practice of a paramedic.



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Capabilities of Various Transport Levels of Care

	BLS (Emergency Medical Technician)	iALS (Intermediate Advanced Life Support)	ALS (Advanced Life Support)	Critical Care Transport (Expanded Scope Paramedic)	Critical Care Transport with agency specific protocols (PHRN, PHP, PHPE)	Specialty Care Transport (Neonatal⁵, Pediatric⁵, ECMO)
Monitoring (Vitals and SpO2)	Yes	Yes	Yes	Yes	Yes	Yes
Cardiac monitoring	No	No	Yes	Yes	Yes	Yes
Antibiotics	No	No	Yes	Yes	Yes	Yes
Mechanical Ventilation	No	No	Yes (Limited to volume control modes and no anticipated need for adjustment)	Yes (All modes approved by agency medical director, titration of settings for pts. on vent >48 hrs)	Yes (All modes approved by agency medical director, titration of settings)	Yes
Vasopressors	No	No	Yes (Limited and not titrated)	Yes	Yes	Yes
Bilevel Positive Airway Pressure	No	No	No (CPAP permitted)	Yes	Yes	Yes
Chest tube to suction or water seal	No	No	No	Yes	Yes	Yes
Sedation and Paralysis	No	No	No (Limited to sedation)	Yes* (Limited sedation; may include paralysis when risks > benefits or CCT appropriately trained)	Yes (Sedation and paralysis)	Yes (Sedation and paralysis)
Cardiac pacing, transvenous	No	No	No	No	Yes	Yes
Blood and blood products	No	No	No	Yes – monitoring of current infusion	Yes	Yes

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Air Medical Transport Considerations

Consultation with a transport medicine / EMS physician is recommended when considering the interfacility transport of a patient in need of critical care (refer to resource document below).

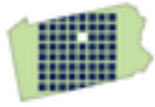
Consider air medical transport when:

1. Air medical transport confers a significant, time-saving benefit to the patient
2. Air medical crews can perform a skill or deliver a therapy beyond the capabilities of the local EMS agency/ground crews
3. Specialty care resources needed but otherwise unavailable (Neonatal transport, ECMO, balloon pump)
4. Local EMS resources are not sufficient to meet patient needs. (No available ambulances, planned interfacility transport would leave a community without EMS coverage, etc.)
5. Neonatal and Pediatric transports require specialty team care when the patient's needs exceed the resources available by the local EMS provider. A pediatric transport system should be capable of rapidly delivering advanced pediatric skilled critical care to the patient's bedside at the referring hospital and of maintaining that level of care during transport to the receiving hospital.

Additional Resources

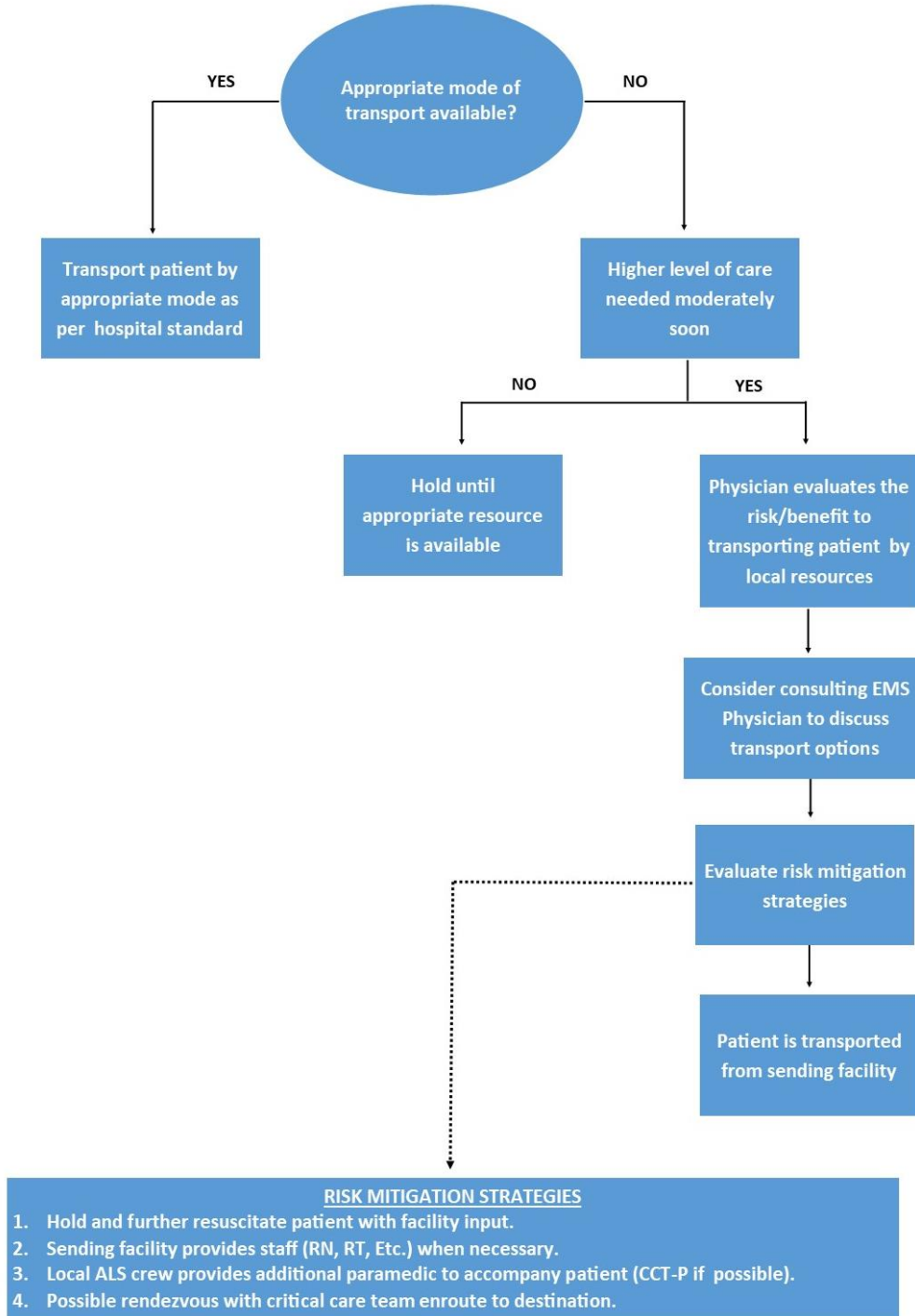
The following documents from the Pennsylvania Department of Health contain additional information about the scope of practice and capabilities of emergency medical services providers and can be viewed at www.pehsc.org/resources/clinical

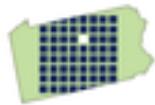
1. [Scope of Practice Documents](#)
 - a. EMR, EMT, AEMT, Paramedic (BLS & ALS)
 - b. Ground Critical Care Transport Agency (Ground CCT)
 - c. Air Ambulance Services (Air CCT)
2. [Approved Medications List](#)
 - a. Approved Medications List by Level of Provider
3. [EMS Clinical Protocols](#)
 - a. Statewide Basic Life Support Protocols (BLS)
 - b. Statewide Advanced Life Support Protocols (ALS)
 - c. Statewide Critical Care Transport Protocols (Ground CCT)
 - d. *Air Ambulance Agency protocols are determined at the individual agency level and approved through the PA DOH
4. **Air/Ground Critical Care Transport Agency Contacts**
 - a. Refer to the list of air/ground critical care transport services in your region.
 - b. Contact the numbers listed for just-in-time assistance in determining the appropriate level of care and mode of transport needed for your patient whenever there is a question regarding the potential need for critical care transport or transport by air medical services.



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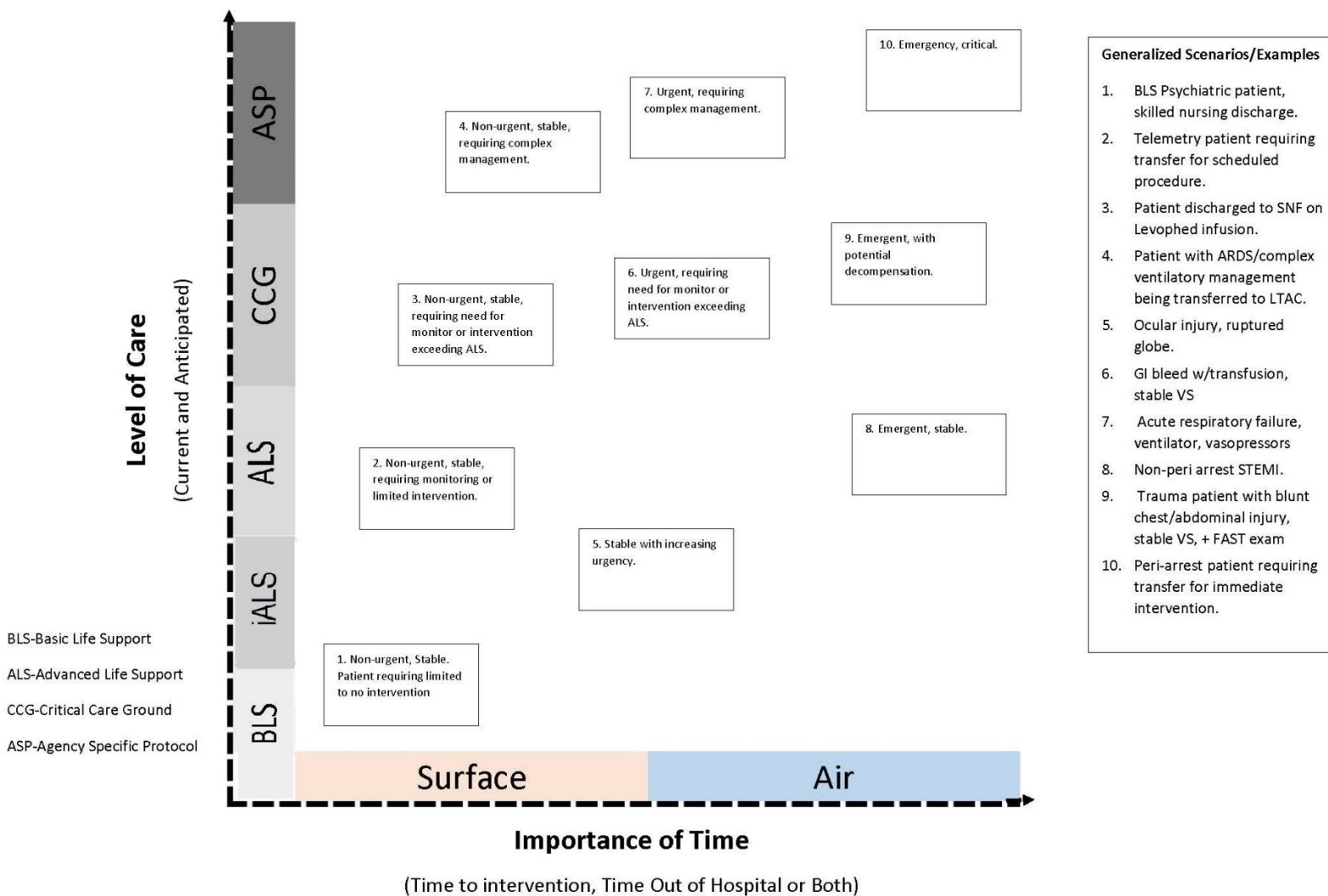
Ideal vs. Available Resource Decision Algorithm

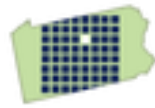




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EMS Transport Decision Axis with Examples





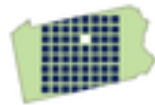
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**Pennsylvania Critical Care Transport:
Resource Contact Information**

<p>Allegheny Health Network Lifeflight (A/G) 412-359-3333</p> <p>STAT MedEvac (A/G) 800-633-7828 or 412-647-9424</p> <p>EmergyCare (G) 814-870-1020</p> <p>Community Ambulance Service (G) 814-437-3016</p> <p>Superior Ambulance Service (G) 724-458-5350</p>	<p>Geisinger LifeFlight (A/G) 800-852-7828</p> <p>STAT MedEvac (A/G) 800-633-7828 or 412-647-9424</p> <p>LifeLion Critical Care Transport Service (A/G) 717-531-7777</p> <p>Temple Transport Team (A/G) 866-483-8326</p> <p>Guthrie LifeNet of PA (A) 800-435-3822</p>	<p>Geisinger LifeFlight (A/G) 800-852-7828</p> <p>Lehigh MedEvac (A/G) 610-402-6200</p> <p>LifeLion Critical Care Transport Service (A/G) 717-521-7777</p> <p>PennSTAR (A/G) 800-543-7827</p> <p>St. Lukes Emergency & Transport Service (A/G) 215-538-4543</p> <p>Temple Transport Team (A/G) 866-483-8326</p>
<p>Allegheny Health Network Lifeflight (A/G) 412-359-3333</p> <p>STAT MedEvac (A/G) 800-633-7828 or 412-647-9424</p>	<p>Conemaugh MedStar (A/G) 800-633-7827</p> <p>Geisinger LifeFlight (A/G) 800-852-7828</p> <p>LifeLion Critical Care Transport Service (A/G) 717-531-7777</p> <p>PennSTAR (A/G) 800-543-7827</p> <p>STAT MedEvac (A/G) 800-633-7828 or 412-647-9424</p> <p>Temple Transport Team (A/G) 866-483-8326</p>	<p>Lehigh MedEvac (A/G) 610-402-6200</p> <p>LifeLion Critical Care Transport Service (A/G) 717-531-7777</p> <p>JeffSTAT (A/G) 215-955-4444 or 800-533-3121</p> <p>PennSTAR (A/G) 800-543-7827</p> <p>St Lukes Emergency & Transport Service (A/G) 215-538-4543</p> <p>STAT MedEvac (A/G) 800-633-7828 or 412-647-9424</p> <p>Temple Transport Team (A/G) 866-483-8326</p>

A = Air Transport Capabilities
G = Ground Transport Capabilities

* Agency listings based on self designation - not intended to be exclusive in that area.



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**Pennsylvania PEDIATRIC/NEONATAL Critical Care Transport:
Resource Contact Information**

<p>AHN West Penn Hospital Allegheny Health Network LifeFlight (A/G) 412-359-3333</p> <p>UPMC Children's Hospital Pittsburgh 412-692-5000</p> <p>UPMC Hamot Hospital St. Vincent Medical Center EmergyCare (G) 814-870-1020</p>	<p>Geisinger Medical Center Children's Hospital Geisinger LifeFlight (A/G) 800-852-7828</p> <p>Children's Hospital Pittsburgh 412-692-5000</p> <p>Penn State Hershey Children's Hospital LifeLion Critical Care Transport Service (A/G) 717-531-7777</p> <p>Temple University Hospital Temple Transport Team (A/G) 866-4T3-TEAM (866-483-8326)</p>	<p>Geisinger Medical Center Children's Hospital Geisinger LifeFlight (A/G) 800-852-7828</p> <p>Lehigh Valley Health Network Lehigh MedEvac (A/G) 610-402-6200</p> <p>Penn State Hershey Children's Hospital LifeLion Critical Care Transport Service (A/G) 717-521-7777</p> <p>Children's Hospital of Philadelphia (A/G) 800-590-2160</p> <p>Temple University Hospital Temple Transport Team (A/G) 866-4T3-TEAM (866-483-8326)</p>
<p>AHN West Penn Hospital Allegheny Health Network LifeFlight (A/G) 412-359-3333</p> <p>UPMC Children's Hospital Pittsburgh 412-692-5000</p>	<p>Conemaugh Health System Conemaugh MedStar (A/G) 800-633-7827</p> <p>Geisinger Medical Center Children's Hospital Geisinger LifeFlight (A/G) 800-852-7828</p> <p>Penn State Hershey Children's Hospital LifeLion Critical Care Transport Service (A/G) 717-531-7777</p> <p>Children's Hospital of Philadelphia 800-590-2160</p> <p>UPMC Children's Hospital Pittsburgh 412-692-5000</p> <p>Temple University Hospital Temple Transport Team (A/G) 866-4T3-TEAM (866-483-8326)</p>	<p>Lehigh Valley Health Network - Reily Children's Hosp. Lehigh MedEvac (A/G) 610-402-6200</p> <p>Penn State Hershey Children's Hospital LifeLion Critical Care Transport Service (A/G) 717-531-7777</p> <p>Children's Hospital of Philadelphia (A/G) 800-590-2160</p> <p>St. Christopher's Hospital for Children (A/G) 888-STCHRIS (888-782-4747)</p> <p>UPMC Children's Hospital Pittsburgh (A/G) 412-692-5000</p> <p>Temple University Hospital Temple Transport Team (A/G) 866-4T3-TEAM (866-483-8326)</p> <p>Nemours A.I. DuPont Hospital for Children (A/G) 800-962-0023</p>

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* Resource listings not intended to be exclusive or confined to a geographic region.