

BENEFIT COVERAGE POLICY

Title: BCP-27 Home Infusion Services

Effective Date: 10/01/2020



Physicians Health Plan
PHP Insurance Company
PHP Service Company

Important Information - Please Read Before Using This Policy

The following coverage policy applies to health benefit plans administered by PHP and may not be covered by all PHP plans. Please refer to the member's benefit document for specific coverage information. If there is a difference between this general information and the member's benefit document, the member's benefit document will be used to determine coverage. For example, a member's benefit document may contain a specific exclusion related to a topic addressed in a coverage policy.

Coverage determinations for individual requests require consideration of:

1. The terms of the applicable benefit document in effect on the date of service.
2. Any applicable laws and regulations.
3. Any relevant collateral source materials including coverage policies.
4. The specific facts of the particular situation.

Contact PHP Customer Service to discuss plan benefits more specifically.

1.0 Policy:

Please refer to the member's benefit plan coverage guidelines for Home Infusion Therapy. Benefit plans may include a maximum allowable benefit, either in duration of treatment or in number of visits. When the maximum allowable benefit is exhausted, coverage may no longer be provided, even if the medical necessity criteria are met.

For all non-network covered services to be paid at the network benefit level except for emergency/urgent services, prior approval is required.

Unlisted codes are subject to review.

This policy does not guarantee or approve Benefits. Coverage depends on the specific Benefit plan. Benefit Coverage Policies are not recommendations for treatment and should not be used as treatment guidelines.

Delegated vendor guidelines may be used to support medical necessity and other coverage determinations. Drug Determination Policies are available upon request.

2.0 Background:

Home infusion services include medications delivered by either of the following:

A. Implantable infusion pumps:

1. Anti-spasmodic drugs delivered intrathecally (e.g., baclofen).
2. Treatment of chronic intractable pain delivered via epidural or intrathecal (e.g., morphine, clonidine).
3. Intra-hepatic chemotherapy infusion for primary hepatocellular carcinoma and metastatic colorectal cancer with metastases limited to the liver (e.g., floxuridine).

B. External infusion pumps:

1. Medications, total parenteral nutrition (TPN) or fluids for hydration delivered via central or peripheral venous access.
2. Enteral nutrition delivered via feeding tube.
3. By continuous infusion, over eight hours or intermittent infusions lasting less than eight hours:
 - a. Certain parenteral chemotherapy drugs (e.g., cladribine, fluorouracil, cytarabine, bleomycin, etc.).
 - b. Certain parenteral antifungal or antiviral drugs (e.g., acyclovir, foscarnet, amphotericin B, etc.).
 - c. Intravenous antibiotics (e.g., ciprofloxacin, levofloxacin, linezolid, fluconazole, etc.).
 - d. Chemotherapy for primary hepatocellular carcinoma or colorectal cancer where the tumor is unresectable or the member declines surgical excision of the tumor.
 - e. Morphine or other narcotic analgesic for intractable pain caused by cancer.
 - f. Parenteral treatment of pulmonary hypertension (e.g., Veletri, Flolan, Ventavis, Remodulin, and Tyvaso).
 - g. Parenteral inotropic therapy to manage advanced heart failure and may be a “bridge to heart transplant” (e.g., dobutamine, milrinone, and/or dopamine).

3.0 Clinical Determination Guidelines:

- A. See PHP’s website for a list of medications that require prior approval for home infusion at <http://www.phpmichigan.com/Providers/General-Forms-and-Information>. Health Plan considers Home Infusion Services medically necessary when the associated medication(s) is/are prior approved by Health Plan’s Pharmacy Department.
1. If the associated medication(s) are not approved, then the home infusion services would not be considered medically necessary. If the medication does not require pharmacy prior approval, then home infusion services are considered medically necessary.
- B. Health Plan considers the following home infusion services **not** medically necessary:
1. Continuous delivery of local analgesia to an operative site using an elastomeric infusion pump during post-operative period. This treatment is designed for up to five days post-operatively, after which time the catheter is removed.

4.0 Coding:

Prior Approval Legend: Y = All lines of business; N = None required; 1 = HMO/POS; 2 = PPO; 3 = ASO group L0000264; 4 = ASO group L0001269 Non-Union & Union; 5 = ASO group L0001631; 6 = ASO group L0002011; 7 = ASO group L0001269 Union Only.

Note: Removal of prior approval requirement is delayed until 1/1/2021 to allow for configuration updates.

COVERED CODES			
Code	Description	Prior Approval	Benefit Plan Cost Share Reference
96374	Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); intravenous push, single or initial	N	Home Infusion Services; Injections and Infusions Received in a Physician’s

COVERED CODES			
Code	Description	Prior Approval	Benefit Plan Cost Share Reference
	substance/drug		Office
96375	... each additional sequential intravenous push of a new substance/drug (List separately in addition to code for primary procedure)	N	Home Infusion Services; Injections and Infusions Received in a Physician's Office
96376	...each additional sequential intravenous push of the same substance; drug provided in a facility (List separately in addition to code for primary procedure)	N	Home Infusion Services; Injections and Infusions Received in a Physician's Office
96409 - 96411	Chemotherapy administration, intravenous push technique	N	Outpatient Therapeutic Treatment Services; Professional Fees for Surgical and Medical Services; Injections and Infusions Received in a Physician's Office
96413 - 96417	Chemotherapy administration, intravenous infusion technique	N	Outpatient Therapeutic Treatment Services; Professional Fees for Surgical and Medical Services; Injections and Infusions Received in a Physician's Office
96422 - 96425	Chemotherapy administration, intra-arterial, infusion technique	N	Outpatient Therapeutic Treatment Services; Professional Fees for Surgical and Medical Services; Injections and Infusions Received in a Physician's Office
96521	Refilling and maintenance of portable pump	N	Outpatient Therapeutic Treatment Services; Professional Fees for Surgical and Medical Services; Injections and Infusions Received in a Physician's Office
96522	Refilling and maintenance of implantable pump or reservoir for drug delivery, systemic (e.g., intravenous, intra-arterial)	N	Outpatient Therapeutic Treatment Services; Professional Fees for Surgical and Medical Services; Injections and Infusions Received in a Physician's Office
96523	Irrigation of implanted venous access device for drug delivery systems	N	Outpatient Therapeutic Treatment Services; Professional Fees for Surgical and Medical Services; Injections and Infusions Received in a Physician's Office

COVERED CODES			
Code	Description	Prior Approval	Benefit Plan Cost Share Reference
99601	Home infusion/ specialty drug administration, per visit (up to 2 hours)	Y	Home Infusion Services
99602	Home infusion/ specialty drug administration, each additional hour (List separately in addition to code for primary procedure)	Y	Home Infusion Services
A4220	Refill kit for implantable infusion pump	N	Physician's Office Services for Sickness or Injury
A4221	Supplies for maintenance of drug infusion catheter, per week (list drug separately)	N	Physician's Office Services for Sickness or Injury
A4222	Infusion supplies for external drug infusion pump, per cassette or bag (list drugs separately)	N	Physician's Office Services for Sickness or Injury
A4223	Infusion supplies not used with external infusion pump, per cassette or bag (list drugs separately)	N	Physician's Office Services for Sickness or Injury
E0779	Ambulatory infusion pump, mechanical, reusable, for infusion 8 hours or greater	N	Durable Medical Equipment (DME)
E0780	Ambulatory infusion pump, mechanical, reusable, for infusion less than 8 hours	N	Durable Medical Equipment (DME)
E0781	Ambulatory infusion pump, single or multiple channels, electric or battery operated, with administrative equipment, worn by patient	N	Durable Medical Equipment (DME)
E0782	Infusion pump, implantable, nonprogrammable (includes all components, e.g., pump, catheter, connectors, etc.)	Y	Durable Medical Equipment (DME)
E0783	Infusion pump system, implantable, programmable (includes all components, e.g., pump, catheter, connectors, etc.)	Y	Durable Medical Equipment (DME)
E0785	Implantable intraspinal (epidural/intrathecal) catheter used with implantable infusion pump, replacement	Y	Durable Medical Equipment (DME)
E0786	Implantable programmable infusion pump, replacement (excludes implantable intraspinal catheter)	Y	Durable Medical Equipment (DME)
G0068	Professional services for the administration of antiinfective, pain management, chelation, pulmonary hypertension, and/or inotropic infusion drug(s) for each infusion drug administration calendar day in the individual's home, each 15 minutes	Y	Home Infusion Services
G0069	Professional services for the administration of subcutaneous immunotherapy for each infusion drug administration calendar day in the	Y	Home Infusion Services

COVERED CODES			
Code	Description	Prior Approval	Benefit Plan Cost Share Reference
	individual's home, each 15 minutes		
G0070	Professional services for the administration of chemotherapy for each infusion drug administration calendar day in the individual's home, each 15 minutes	Y	Home Infusion Services
Q0081	Infusion therapy, using other than chemotherapeutic drugs, per visit	Y	Home Infusion Services
Q0084	Chemotherapy administration by infusion technique only, per visit	Y	Outpatient Therapeutic Treatment Services; Injections and Infusions Received in a Physician's Office
S0093	Injection, morphine sulfate, 500 mg (loading dose for infusion pump)	N	Professional Fees for Surgical and Medical Services; Injections and Infusions Received in a Physician's Office
S5010	5% dextrose and 0.45% normal saline, 1000 ml	N	Physician's Office Services for Sickness or Injury
S5012	5% dextrose with potassium chloride, 1000 ml	N	Physician's Office Services for Sickness or Injury
S5013	5% dextrose/0.45% normal saline with potassium chloride and magnesium sulfate, 1000 ml	N	Physician's Office Services for Sickness or Injury
S5014	5% dextrose/0.45% normal saline with potassium chloride and magnesium sulfate, 1500 ml	N	Physician's Office Services for Sickness or Injury
S5497	Home infusion therapy, catheter care/maintenance, not otherwise classified; includes administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Physician's Office Services for Sickness or Injury
S5498	Home infusion therapy, catheter care/maintenance, simple (single lumen), includes administrative services, professional pharmacy services, care coordination and all necessary supplies and equipment, (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S5501	Home infusion therapy, catheter care/maintenance, complex (more than one lumen), includes administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services

COVERED CODES			
Code	Description	Prior Approval	Benefit Plan Cost Share Reference
S5502	Home infusion therapy, catheter care/maintenance, implanted access device, includes administrative services, professional pharmacy services, care coordination and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem (use this code for interim maintenance of vascular access not currently in use)	Y	Home Infusion Services
S5517	Home infusion therapy, all supplies necessary for restoration of catheter patency or declotting	Y	Home Infusion Services
S5518	Home infusion therapy, all supplies necessary for catheter repair	Y	Home Infusion Services
S9325	Home infusion therapy, pain management infusion, administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem (do not use this code with S9326, S9327, or S9328)	Y	Home Infusion Services
S9326	Home infusion therapy, continuous (24 hours or more), pain management infusion; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9327	Home infusion therapy, intermittent (less than 24 hours) pain management infusion; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9328	Home infusion therapy, implanted pump pain management infusion; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9329	Home infusion therapy, chemotherapy infusion; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem (do not use this code with S9330 or S9331)	Y	Home Infusion Services
S9330	Home infusion therapy, continuous (twenty-four hours or more) chemotherapy infusion; administrative	Y	Home Infusion Services

COVERED CODES			
Code	Description	Prior Approval	Benefit Plan Cost Share Reference
	services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem		
S9331	Home infusion therapy, intermittent (less than twenty-four hours) chemotherapy infusion; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9338	Home infusion therapy, immunotherapy, administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9340	Home therapy; enteral nutrition; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (enteral formula and nursing visits coded separately), per diem	Y	Home Infusion Services
S9341	Home therapy; enteral nutrition via gravity; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (enteral formula and nursing visits coded separately), per diem	Y	Home Infusion Services
S9342	Home therapy; enteral nutrition via pump; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (enteral formula and nursing visits coded separately), per diem	Y	Home Infusion Services
S9343	Home therapy; enteral nutrition via bolus; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (enteral formula and nursing visits coded separately), per diem	Y	Home Infusion Services
S9345	Home infusion therapy, anti-hemophilic agent infusion therapy (e.g. Factor VIII); administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9346	Home infusion therapy, alpha-1-proteinase inhibitor (e.g., Prolastin); administrative services, professional	Y	Home Infusion Services

COVERED CODES			
Code	Description	Prior Approval	Benefit Plan Cost Share Reference
	pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem		
S9347	Home infusion therapy, uninterrupted, long-term, controlled rate intravenous or subcutaneous infusion therapy (e.g. epoprostenol); administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9348	Home infusion therapy, sympathomimetic/inotropic agent infusion therapy (e.g., dobutamine); administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9349	Home infusion therapy, tocolytic infusion therapy; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9351	Home infusion therapy, continuous or intermittent anti-emetic infusion therapy; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9357	Home infusion therapy, enzyme replacement intravenous therapy; (e.g. imiglucerase); administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9359	Home infusion therapy, anti-tumor necrosis factor intravenous therapy; (e.g. infliximab); administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9361	Home infusion therapy, diuretic intravenous therapy; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and	Y	Home Infusion Services

COVERED CODES			
Code	Description	Prior Approval	Benefit Plan Cost Share Reference
	nursing visits coded separately), per diem		
S9363	Home infusion therapy, anti-spasmodic therapy; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9364	Home infusion therapy, total parenteral nutrition (TPN); administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment including standard TPN formula (lipids, specialty amino acid formulas, drugs other than in standard formula and nursing visits coded separately), per diem (do not use with home infusion codes S9365-S9368 using daily volume scales)	Y	Home Infusion Services
S9365	Home infusion therapy, total parenteral nutrition (TPN); one liter per day, administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment including standard TPN formula (lipids, specialty amino acid formulas, drugs other than in standard formula and nursing visits coded separately), per diem	Y	Home Infusion Services
S9366	Home infusion therapy, total parenteral nutrition (TPN); more than one liter but no more than two liters per day, administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment including standard TPN formula (lipids, specialty amino acid formulas, drugs other than in standard formula and nursing visits coded separately), per diem	Y	Home Infusion Services
S9367	Home infusion therapy, total parenteral nutrition (TPN); more than two liters per day but no more than three liters per day, administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment including standard TPN formula (lipids, specialty amino acid formulas, drugs other than in standard formula and nursing visits coded separately), per diem	Y	Home Infusion Services
S9368	Home infusion therapy, total parenteral nutrition (TPN); more than three liters per day, administrative services, professional pharmacy services, care coordination,	Y	Home Infusion Services

COVERED CODES

Code	Description	Prior Approval	Benefit Plan Cost Share Reference
	and all necessary supplies and equipment including standard TPN formula (lipids, specialty amino acid formulas, drugs other than in standard formula and nursing visits coded separately), per diem		
S9373	Home infusion therapy, hydration therapy; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem (do not use with hydration therapy codes S9374 - S9377 using daily volume scales)	Y	Home Infusion Services
S9374	Home infusion therapy, hydration therapy; 1 liter per day, administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9375	Home infusion therapy, hydration therapy; more than 1 liter but no more than 2 liters per day, administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9376	Home infusion therapy, hydration therapy; more than 2 liters but no more than 3 liters per day, administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9377	Home infusion therapy, hydration therapy; more than 3 liters per day, administrative services, professional pharmacy services, care coordination, and all necessary supplies (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9490	Home infusion therapy, corticosteroid infusion; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services

COVERED CODES			
Code	Description	Prior Approval	Benefit Plan Cost Share Reference
S9494	Home infusion therapy, antibiotic, antiviral, or antifungal therapy; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately, per diem) (do not use with home infusion codes for hourly dosing schedules S9497 - S9504)	Y	Home Infusion Services
S9497	Home infusion therapy, antibiotic, antiviral, or antifungal therapy; once every 3 hours; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9500	Home infusion therapy, antibiotic, antiviral, or antifungal therapy; once every 24 hours; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9501	Home infusion therapy, antibiotic, antiviral, or antifungal therapy; once every 12 hours; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9502	Home infusion therapy, antibiotic, antiviral, or antifungal therapy; once every 8 hours; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9503	Home infusion therapy, antibiotic, antiviral, or antifungal therapy; once every 6 hours; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Y	Home Infusion Services
S9504	Home infusion therapy, antibiotic, antiviral, or antifungal therapy; once every 4 hours; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits	Y	Home Infusion Services

COVERED CODES			
Code	Description	Prior Approval	Benefit Plan Cost Share Reference
	coded separately), per diem		
S9810	Home therapy; professional pharmacy services for provision of infusion, specialty drug administration, and/or disease state management, not otherwise classified, per hour (do not use this code with any per diem code).	Y	Home Infusion Services

NON-COVERED CODES		
Code	Description	Benefit Plan Reference/Reason
A4300	Implantable access catheter, (e.g., venous, arterial, epidural subarachnoid, or peritoneal, etc.) external access	Code bundled with infusion pump
A4301	Implantable access total catheter, port/reservoir (e.g., venous, arterial, epidural, subarachnoid, peritoneal, etc.)	Disposable supplies not covered
A4305	Disposable drug delivery system, flow rate of 50 ml or greater per hour [not covered for intralesional administration of narcotic analgesics and anesthetics]	Disposable supplies not covered
A4306	Disposable drug delivery system, flow rate of less than 50 ml per hour [not covered for intralesional administration of narcotic analgesics and anesthetics]	Disposable supplies not covered
S5035	Home infusion therapy, routine service of infusion device (e.g., pump maintenance)	Not billable separately, part of pump rental contract
S5036	Home infusion therapy, repair of infusion device (e.g., pump repair)	Bundled code
S9336	Home infusion therapy, continuous anticoagulant infusion therapy (e.g. heparin), administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Not appropriate for home infusion services due to monitoring requirements
S9353	Home infusion therapy, continuous insulin infusion therapy; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Not appropriate for home infusion services due to monitoring requirements
S9355	Home infusion therapy, chelation therapy; administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment (drugs and nursing visits coded separately), per diem	Experimental/unproven service
S9538	Home transfusion of blood product(s); administrative services, professional pharmacy services, care coordination and all necessary supplies and equipment (blood products, drugs, and nursing visits coded separately), per diem	Service not done in the home due to safety concerns

5.0 Unique Configuration/Prior Approval/Coverage Details:

None.

6.0 Terms & Definitions:

Enteral – delivery of fluid, medication, or nutrients directly into the stomach, duodenum or jejunum (small intestine) via a tube inserted by way of the nose (nasogastric tube) or a tube surgically placed. Associated terms Dobhoff, percutaneous endoscopic gastrostomy [PEG], percutaneous endoscopic jejunostomy (PEJ).

External infusion pump – an electrically or mechanically powered device used to deliver fluids in a controlled manner, e.g., enteral pump to deliver liquid nutrients, patient-controlled analgesia (PCA), peristaltic pump, etc.

Implantable infusion pump – a small device surgically placed under the skin. The pump sends medication through a thin, flexible catheter to a specific part of the body.

Parenteral – delivery of fluid, medication or nutrients by some means other than oral or rectal, particularly intravenously or by injection.

7.0 References, Citations & Resources:

CMS.gov, Home Infusion Therapy Services.06/25/2020.

<https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/Home-Infusion-Therapy/Overview>

8.0 Associated Documents [For internal use only]:

None.

9.0 Revision History:

Original Effective Date: 10/01/2019

Next Review Date: 10/1/2021

Revision Date	Reason for Revision
2/19	Policy created
6/20	Annual review; updated COC references, updated codes, PA removed. Added note 12/14/20 that removal of PA delayed due to configuration updates.