

## Hospital Outpatient Department

**Patients** are usually adults 18 years and older, with variations in health status, co-morbidities, and severity of diagnosis. The pediatric and adolescent population may receive therapy in a children's HOPD dedicated to those under 18 years of age.

**Infusions** include chemotherapy, biologics / biosimilars, IV antibiotics, blood transfusions and blood products, injections, fluids for rehydration, and adjunct treatment(s) as needed. Infusions may last between 30 minutes to several hours.

### Benefits

- Capable of caring for more complex patients with co-morbidities.
- Resources and staff are in place to help patients navigate their treatment and plan of care.
- Pharmacists are on staff to provide consultations and prepare drugs that require use of a USP 800 system when mixing, preparing, compounding, and dispensing hazardous medications.
- Lab, radiology, and other ancillary services are readily available if needed.
- Access to a hospital response team for an emergency situation or adverse reaction.
- Established compliance with regulatory agencies (CMS, Joint Commission, pharmacy regulators such as the FDA and state boards of Pharmacy.
- Infusion qualified staff are available during weekends and holidays if needed.
- Patient may already have an established EHR within the health system making it easier to review history, treatment plans, manage care, and update records.

### Concerns

- Total cost of spending on medications and care may be twice as high than other site of care options. Overhead expenses make this option less attractive for commercial payers.<sup>3</sup>
- Maintaining separation of immunocompromised patients from other patients and assuring a clean environment between patients and the general hospital staff, patients, and visitors.
- Travel distance to the facility, adequate parking, and other factors may negatively impact patient satisfaction.

## INFUSION THERAPY SERVICES

Patients today have a number of options to consider when determining the location for receiving infusion therapy and monitored treatments.



### Overview

Defining the benefits and challenges of each site of care will assist nurses, patient navigators, discharge planners, and infusion therapy managers to help patients make informed decisions – one that best meets their needs and ensures support from family or caregivers.

Chemotherapy, infusions for autoimmune disorders, and other medication treatments are frequently administered outside of the hospital, especially during the COVID-19 pandemic, and forecasts indicate the site of care trends will continue in the future.<sup>1,2</sup>

Infusions are usually administered in one of the following:

- Hospital outpatient department (HOPD)
- Stand-alone infusion center
- Dedicated infusion area within a specialty medicine clinic or office building
- Patient home when coordinated through a qualified home health agency

Each option has service delivery, staffing, and cost considerations. Expanded healthcare coverage through the Affordable Care Act has supported access to services previously unavailable for many; however, reimbursement and out-of-pocket expenses vary and can limit where these services are delivered.<sup>3</sup>

### Statistics

- According to the American Cancer Society Facts & Figures (2021), almost 1.9 million new cancer cases are expected to be diagnosed in 2021. These numbers do not account for the unknown impact of COVID-19 and delays in seeking care.<sup>4</sup>
- In 2012, Drs. Scott Hayter and Mathew Cook published a study identifying the existence of 81 autoimmune disorders with an overall estimated prevalence of 4.5%. Based on the current US population of 320 million, approximately 14.7 million people in the US may have one or more autoimmune disorders.<sup>5</sup>
- The 2019 National Home Infusion Association (NHIA) study reported that home infusions increased 300% since the last industry study in 2008.<sup>2</sup>



## Specialty Physician Office

**Patients** receiving infusion treatments in a medical office vary depending on the specialty practice and whether the patient population includes children or adolescents. Medical specialty services provide biologics, injections, and other medications which are administered either by the physician or nursing staff employed by the clinic. Oncology / Hematology may infuse some low risk chemotherapy and adjunct medications to chemotherapy in a dedicated infusion area within their office or in the medical office building. Hemodynamic / cardiac monitoring is required much like a stand-alone infusion center.

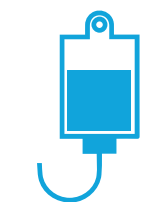
**Infusions** include IV antibiotics, biologics, injections, and fluids for rehydration. Administering chemotherapy in an office setting is dependent on the toxicity of the drug, patient condition, and an adequate storage and disposal system. Other drugs, such as *OnabotulinumtoxinA* (Botox) injections for migraine headaches, may be injected in an office setting but require the ability to treat side-effects or potentially serious adverse reactions.

### Benefits

- Employ registered nurses knowledgeable of specific patient population(s) and infusion therapy.
- May combine infusions or treatments for their patients in the office in conjunction with a scheduled exam or office visit.
- Familiar staff and often have group support available for their patients.
- Other benefits are similar to those found in the stand-alone infusion center.

### Concerns

- Patient treatments are only provided during office hours.
- Must maintain an adequate patient population for service to be viable.
- May require additional staff to verify eligibility, manage pre-authorization, and billing associated with the service.
- Staff are responsible for managing inventory control, storage, labeling, and record-keeping.
- Safety and supply chain of specialty pharmacy for delivery and/or compounding of costly injectable and infusible medications (known as “white bagging”).<sup>8</sup>
- Patient health records may or may not be accessible to hospitals in case of an admission.
- Depending on the location and prescribing physician's association with a health care system, a “facility fee” could be charged in addition to other out-of-pocket expenses.



## Stand Alone Infusion Center

**Patients** are typically adults age 18 or older. They are not limited to one specialty medicine service; however, there may be limitations in the ability to treat some patients or children. Stand-alone centers are generally considered to be independently owned but may be part of a hospital, healthcare system, or physician group.<sup>6</sup>

**Infusions** include IV antibiotics, biologic / biosimilars, and fluids for rehydration. Injections are also administered and, depending on the drug toxicity and associated risk factors, some chemotherapy. Drugs administered in a stand-alone center require hemodynamic and cardiac monitoring capabilities. Blood and blood products may be administered but must meet lab and storage requirements.

### Benefits

- Less institutional setting, familiar staff, and consistent care.
- Majority of nurses are infusion certified and capable of treating adverse reactions.
- Staff work closely with the patient providers, pharmacists, and service payors.
- Required to meet certification and compliance with federal and state regulations providing oversight of the facility, services, and medication administration system.<sup>7</sup>
- CDC guidelines are followed to ensure a clean, safe environment.
- Usually less travel distance for patients and available parking close to the center.
- May have extended hours and limited weekend hours.

### Concerns

- Patients who require after-hour, weekend or holiday treatments, would need to go a HOPD, Emergency Department, or a nursing unit to receive therapy when the center is closed or a patient needs blood or blood products.
- Insurance approval and payment for medication / treatment at an infusion center must be confirmed prior to receiving therapy.
- Medications are the property of the patient, creating a disposal dilemma if no longer needed.
- Patient health record may or may not be accessible or compatible with provider or hospital system.



## Home Infusion Services

**Patients** are usually adults, but some home infusion services are dedicated to children and adolescents. According to the National Home Infusion Association (NHIA) eligible patients may have cancer / cancer-related pain, dehydration, gastrointestinal diseases or disorders, congestive heart failure, Crohn's Disease, hemophilia, immune deficiencies, multiple sclerosis, and rheumatoid arthritis.<sup>2</sup> Growth in the market is due to an increase in the geriatric population and the number patients with chronic diseases who can be appropriately treated in their home.<sup>9</sup> Reimbursement has hindered expansion of the service in the past but validation of the safety of home infusions and the pandemic resulted in more treatments and insurance acceptance of this option.<sup>10</sup>

**Infusions** include IV antibiotics, biologic / biosimilars, injections, and fluids for rehydration. Depending on the drug and associated risk factors, some low risk chemotherapy may also be infused.

### Benefits

- Lower cost than other options. Current trend by numerous insurers to support home care over HOPD. Refer to Aetna, Blue Cross / Blue Shield, United Healthcare policies.<sup>11, 12, 13</sup>
- Accredited programs with qualified staff are covered by Medicare Part B if requirements are met.<sup>14</sup>
- Provided in the comfort of the patient home with family present and no travel involved.
- May be utilized in combination with other locations when a treatment schedule does not align with the hours of operation at a clinic or infusion center.

### Concerns

- Not an option for all patients due to health conditions, types of medication with stringent transport, storage and disposal requirements, and ability to maintain a safe home environment for other members of the household.<sup>15</sup>
- Requires coordination among multiple entities, including patients, physicians, hospital discharge planners, health plans, home infusion pharmacies, and home health agencies.
- A single nurse visits multiple homes during a day and must be conscientious about sanitizing equipment brought into the house and avoid spreading infections between patients.
- Infusion nurse safety and occupational risks.<sup>16</sup>

#### Resources

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