COMMONWEALTH of VIRGINIA
DEPARTMENT OF SOCIAL SERVICES
Office of the Commissioner

S. Duke Storen
Commissioner

July 19, 2021

MEMORANDUM

TO: The Honorable Ralph Northam
Governor of Virginia

The Honorable Mark D. Sickles, Chair
House Committee on Health, Welfare and Institutions

The Honorable Louise Lucas, Chair
Senate Committee on Education and Health

FROM: S. Duke Storen

SUBJECT: Plan for Licensure of Prescribed Pediatric Extended Care in the Commonwealth

I am pleased to submit the Department of Social Services' plan for the licensure of prescribed pediatric extended care centers in the Commonwealth, prepared pursuant to Chapter 929, as passed by the 2020 Session of the General Assembly. If you have questions or need additional information concerning this report, please contact me.

SDS:kc
Attachment

Preface

During the 2020 Virginia General Assembly Session, the General Assembly directed the Commissioner of the Department of Social Services (VDSS) to convene a work group to develop a plan for licensure of Prescribed Pediatric Extended Care Centers (PPECC) in the Commonwealth. This plan needed to include "provisions for the construction, maintenance, operation, staffing, and management of prescribed pediatric extended care centers and the nature and scope of services to be provided by PPECC."

A Prescribed Pediatric Extended Care Center (PPECC) is a non-residential, family-centered medical daycare facility that provides medical and other care for children with a variety of complex healthcare needs, 21 years of age and under. A child qualifies for care at a PPECC when a physician writes them a prescription for skilled nursing services. Children attend a PPECC for a specified number of hours a day. The maximum number of hours is often set out in state law or regulation.

VDSS led a work group, which included representatives from the Departments of Health Professions, Medical Assistance Services and Social Services, pediatric health care providers, and other stakeholders as the Commissioner deemed appropriate, such as the parent of a child who would likely qualify for PPEC if they were available in Virginia.

This report, presented to the Governor, the Chairs of the House Committee on Health, Welfare, and Institutions, and the Senate Committee on Education and Health, outlines key recommendations for a PPECC regulatory structure.

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Executive Summary

This report is submitted pursuant to Acts of Assembly Chapter 929, as passed by the 2020 Session of the General Assembly, requiring the Commissioner of the Department of Social Services (VDSS) to convene a work group for the purpose of developing a plan for the licensure of Prescribed Pediatric Extended Care Centers (PPECC) in the Commonwealth (see Appendix A). The work group included representatives from the Department of Health Professions, the Department of Medical Assistance Services, and the Department of Social Services; pediatric health care providers; and other stakeholders as the Commissioner deemed appropriate, such as the parent of a child with medical complexities that would likely qualify for Prescribed Pediatric Extended Care (PPEC) if it were available in Virginia (see Appendix B). This report summarizes the work group's findings and provides a plan for the licensure of PPECC in Virginia.

Recommendations

1. The workgroup recommends that the General Assembly create PPECCs in statute and direct state agency regulatory oversight based on a needs assessment conducted by the Virginia Department of Medical Assistance Services (DMAS). The needs assessment estimated that there are approximately 14,000 children in the Commonwealth who would be eligible for PPECC.

2. The workgroup did not make a recommendation as to which state agency should have regulatory control and oversight over PPECCs. States with PPECCs generally placed licensing authority with the Department of Health or Department of Social Services (see Appendix C). Both the Virginia Department of Health and the Virginia Department of Social Services already have a licensing division that could be expanded to oversee PPECCs. However, the General Assembly would still need to provide new financial resources in order to create a new licensing program for PPECCs at either agency.

3. The workgroup recommends the General Assembly consider the following provisions for the construction, maintenance, operation, staffing, and management of PPECC and for the nature and scope of services to be provided.

    A. Construction

    The construction or renovation of a PPECC building should comply with all state and local requirements pertaining to building construction standards, including plumbing, electrical code, glass, and accessibility for the physically disabled. PPECCs should also comply with the minimum facility standards.

    B. Maintenance

    To provide safe and sanitary facilities and healthful programs, the licensing agency should adopt facility standards pertaining to the facilities that prioritize:

(a) The adoption and implementation of policies and procedures that assure the health and safety of children;
(b) Maintenance, based upon the size of the structure and the number of children, relating to plumbing, heating, lighting, ventilation, and other building conditions. Providing adequate space will ensure the children's health, safety, comfort, and protection from fire and other hazardous conditions;
(c) Sanitary conditions, including the water supply, sewage disposal, food handling, and general hygiene; and
(d) Contract and other operational and transportation services.

C. Operation and Management

The nature and scope of the operation and management of PPECC services should include the following:

- The coordination of emergency transportation arrangements with the city/county emergency operation services. The PPECC should ensure an adult staff member accompanies the child on any emergency transport.
- A documented preventative maintenance program with specific emphasis on ensuring that all durable medical equipment functions correctly and safely.
- The PPECC should maintain medical records, data, and information relative to the children and programs in the facility for inspection by the licensing agency.
- Appropriate and readily available emergency services that include an emergency drug kit, a crash cart with a defibrillator appropriate for children, and any other emergency services appropriate to the needs of the children at the center.
- A written disaster plan that addresses natural disasters, weather emergencies, bomb threats, emergency drills, manufactured disasters, and financial disasters.
- Infection control policies
- Policies for the prevention of incidents and accidents.
- Immediate reporting to the licensing agency of any incidents and accidents that affect the health, safety and welfare of a child.
- Documentation of all incidents and accidents.
- Coordination and collaboration with other agencies that may serve the child, such as early intervention and the local school district.

D. Staffing Recommendations

The licensing agency should establish appropriate staffing requirements. The staff responsible for providing basic and supportive services should comply with all health professional licensing statutes and regulations promulgated by the appropriate licensing board. Staffing recommendations include:

- An administrator who is either a physician with a current license, a nurse practitioner, a licensed nursing home administrator, a child daycare director, or a registered nurse with at least five years of service in pediatric medicine.
- A medical director who is responsible for basic and supportive services, including medical, pharmaceutical, and nursing services. The medical director should ensure

that the governing body has developed, approved, and implemented policies and procedures regarding the operations of the PPECC. These policies and procedures should include the prevention, reporting, and investigation of abuse; the delivery of medical and therapeutic services; and the control and delivery of pharmaceutical services.

- A supervisor that holds a valid professional license issued by the Virginia Board of Medicine, Virginia Board of Nursing, Occupational Therapy Advisory Board, Virginia Board of Pharmacy, Virginia Board of Physical Therapy, or the Virginia Board of Audiology and Speech-Language Pathology.
- A direct care staff member that is one of the following: licensed professional nurse, registered nurse, physical therapist, occupational therapist, speech-language pathologist, or an individual who has a high school diploma or equivalent and at least one year of documented and supervised experience in a health care or child care setting.
- Staffing/caregiver ratios should be established to ensure safe and appropriate care.
- A documented orientation and staff development program should be mandated to ensure employees and contracted staff are adequately trained to provide services to children.

E. Services

The services provided should include skilled nursing, physical therapy, occupational therapy, speech therapy, education, meals, snacks, transportation, and family education. These services will promote and maintain the children's health and development and will assist with the training of the children's parents or legal guardians. Each child attending the PPECC will have an individualized plan of care designated by the child's attending physician, the PPECC treatment team, a parent or legal guardian, and, when appropriate, the child. No child should attend a PPECC for more than 12 hours within a 24-hour period. A PPECC should not provide services other than those typically provided to medically dependent or technologically dependent children.

Introduction

Prescribed Pediatric Extended Care Centers

A Prescribed Pediatric Extended Care Center (PPECC) is a non-residential, family-centered medical daycare facility that provides medical and other care for children with a variety of complex health care needs, 21 years of age and under. A child qualifies for care at a PPECC when a physician writes them a prescription for skilled nursing services. Children attend a PPECC for a specified number of hours a day. The maximum number of hours is often set out in state law or regulation.

PPECCs provide services based on the needs of the enrolled children. Common services offered include: apnea monitoring, oxygen administration, tube feeding, tracheostomy care, airway management, transportation, infusion therapy, nutrition counseling, psychological services, developmental therapies, personal care services, and medication management/titration.

Staffing for PPECCs typically includes physicians, pediatricians, registered nurses, nursing assistants, patient care technicians, medical assistants, emergency medical technicians or paramedics, and individuals with training and experience in education, social services, or child care related fields. Law or regulation often determines the required number of staff per child in care.

The PPECC develops an individualized, comprehensive plan of care in coordination with the child's parents/guardians and physician. The plan considers each child's medical, social, and developmental needs and determines the best interventions and therapies to facilitate a strong outcome for each child. Children participate in socially and developmentally stimulating activities with staff and their peers. Parents receive updates on the child's interventions, therapies, educational, and social activities.

The first step for a child to become eligible for PPEC is for the child's pediatrician to make a formal referral. Prior authorization from the family's health insurance carrier is also required. The PPECC, with input from the family and the child's physician, evaluates the child. The child's pediatrician and PPECC then develop a plan of care for the child. The child's schedule is established by the PPECC and family. Services provided include skilled nursing, physical therapy, occupational therapy, speech therapy, education, meals, snacks, transportation, and family education.

The nursing care ratio is typically one nurse to every three children. Billing is generally per hour for any length of time under four hours, and a full day for anything over four hours (up to twelve hours per day). Care is offered five to seven days per week.

Prescribed Pediatric Extended Care (PPEC) in Other States

In the late 1980's, PPEC regulations were adopted in Florida and Kentucky. PPECC became operational in Florida in 1996 and in Kentucky in 2010. Other states have adopted similar regulations and opened centers as recently as 2019. Many states with any type of medical daycare model for children have adopted PPEC regulations.

Pediatric medical daycare exists in other states under different names, such as pediatric day health, medical day treatment, and pediatric medical daycare. These vary in the types of services they provide. States with alternate forms of medical daycare include California, Colorado, Louisiana, Maryland, Massachusetts, Nevada, New Jersey, New York, and South Carolina.

Seven states define "prescribed pediatric extended care" in their state codes. In all seven states, oversight for PPEC is with the state agency that oversees health or health and human/social services. For links to information on PPEC in other states, refer to Appendix C.

In some states, such as Florida, Medicaid reimburses for PPEC services that provide non-residential short-term, long-term, or intermittent medical care to recipients with medically complex conditions. See: Florida Medicaid Covered Services and HBCS Waivers.

i. Eligibility to Qualify for PPEC

Common diagnoses that qualify a child for PPEC include: cerebral palsy; ventilator/oxygen dependence; tracheostomy; feeding disorders/reflux; nasogastric, gastrostomy, and jejunostomy tube feedings; hyperalimentation; diabetes; intermittent bladder catheterization; ostomies; cardiac disease or defects; respiratory diseases and disorders; chronic lung disease; genetic disorders; failure to thrive; and complications of prematurity.

Other medical needs that qualify for skilled nursing services at a PPECC by prescription include: arthrogryposis multiplex congenita, chromosomal abnormalities, complex medication regimen, cystic fibrosis, endocrine disorder, feeding tube dependence, developmental delay, gastrointestinal disorders, gastrostomies, intravenous therapy, kidney disease, mitochondrial disease, neurological disorder, Pierre Robin sequencing, quadriplegia/paraplegia, seizure disorder, and spina bifida.

ii. Current Care Options in Virginia

There are currently three options for care of children with medical complexities (CMC) in Virginia. Two options are state-supported systems: direct family care and in-home nursing, also known as direct personal care. The third option is residential care.

iii. Direct Family Care

Families are the primary providers of skilled and unskilled care for CMC. Families providing direct family care face many challenges that include navigating available state resources, complex healthcare delivery systems, a school system with a limited scope of practice, and limited respite services.

Direct care by a primary family caregiver, usually the mother, is used in 100% of CMC cases at some point (Calderon, et al. 2011) (Landsman 2009). Primary family caregiving benefits the child and the caregiver is typically trained by the health care professional treating the child. There is also no cost to the state, although some states, such as Colorado, Minnesota, and California, pay a family caregiver to perform direct care for the child. The disadvantage is that the direct and constant caregiver role can burden families. The clinical and therapeutic care needs of the child, as well as the costs associated with the child's medical complexity all contribute to caregiver burn-out, especially when children have technological dependencies. All parents need breaks from parenting, and parents to CMC need more time off than others. (Ruppert and Host 2008)

In-Home Nursing or Direct Personal Care

In-home nursing care or direct personal care can be instrumental in facilitating a child's transition from an acute care setting back into the family home. In-home nursing care helps an older child with medical complexity and disability remain in the home longer than if the family had no skilled nursing or direct care support. This rarely fulfills all of the caring demands placed on a family with a child with medical complexities. However, there are some families that can support their child using only in-home nursing care. Many of those utilizing in-home nursing care experience problems such as trust issues between family and nurses, lack of flexibility with nursing hours, limited scope of nursing care, limited availability of nurses, or lack of access to Medicaid. (Breneol, Goldberg and Watson 2019) These deficiencies add stress to families above and beyond the level of stress for families who have typically developing children. (Allshouse, et al. 2018) (Breneol, Goldberg and Watson 2019)

Additionally, in-home skilled nursing care services are typically rendered from a Medicaid or Medicaid waiver system for individuals with medical complexities and disabilities. If the child does not have Medicaid or is unable to access a waiver spot, families go without any in-home support.

Residential Care

Residential care is an option for CMC with known cognitive and physical disabilities. This care can occur in skilled nursing facilities, Intermediary Care Facilities for Individuals with Intellectual or Developmental Disabilities (ICF/IDD), specialty hospitals providing long-term care, transitional facilities, rehabilitation hospitals, and medical group homes. (Friedman and Kalichman 2014). Residential care for children and youth has changed considerably over the years. In 1977, 36% of all residents in state-run institutions (not including private or religious congregate settings) were aged 0-21 years. In 2010, 4% of those living in congregate care were between 0-21 years.

Advantages and Concerns about Residential Care

Parents of children with medical complexities choose placement out of the home for a variety of reasons that tend to be unique to the child, their relationship with the primary caregiver, and the expectation of care needed. Green (2004) found that mothers of children with disabilities, many of whom would be considered CMC, indicated that they would be willing to consider out of home placement for their child. Thirty-eight percent of those mothers would only

be willing to do so if they became convinced that the needs of their child would be better served by such placement. Older single mothers of children with severe disabilities were more likely than other mothers to consider placement. Factors, such as adequate economic resources and residential stability, tended to discourage placement.

Parents had various rationales for placing their child in residential care. Some parents believed the child's care had negative effects on themselves or family members. Mothers who experienced a great degree of emotional strain due to their caregiving role were more likely to consider out-of-home placement than those experiencing lower emotional strain. Some parents looked at placement as a way to protect their child from greater societal harm. In these cases, parents feared that their children had been teased by their peers and were concerned that their children would continue to be targets for maltreatment. Additionally, the perceived burden of caregiving was most significantly correlated with both perceived stigma and placement attitude.

Findings from residential care studies generally suggested that the understanding of residential placement is exceptionally unique to the families involved. Reducing the number of people in placements and long-term care starts with more people understanding the reasons for the residential placement of a child with medical complexities. Changes in policies over time have shifted parents' interest in community-based options. Additionally, parents' adaptations shift as CMC age and conditions become harder to manage.

Table 1 presents a summary comparing the in-home and facility-based care models. There are positives and negatives to both options and neither offers ideal solutions for all families.

Table 1. In-Home vs. Facility-Based Care

In-Home Care	Facility-Based Care
● Focuses on the medical needs of the child, not the social/emotional development of the child. ● Not possible for all families due to access, living arrangements, and desire. ● Requires considerable oversight by family caregivers to find, train, and keep in-home caregivers. ● Does not match the care options of peers without medical complexities. In effect, it removes CMC from society, even while living in their family home. ● Not consistent enough to allow for work or school. ● Hours can vary from year to year making it hard to work and plan for family needs.	● Highly stigmatizing and rarely a first choice for families. ● Children from 0-5 years can have damaging impacts from institutionalization. ● There are few options for removing a child from institutional care outside of in-home care. ● Many families choose residential placement because of problems and limitations associated with in-home nursing care. ● Changes in facility-based care over the years means that programs that supported temporary respite needs for medically complex children no longer exist. ● An "all or none" approach.

Benefits of PPEC

PPEC provides an option for CMC and their families outside the framework of in-home and residential care. PPEC provides CMC with structure and day-to-day activities that allow for socialization, which they would not otherwise have received through in-home health care. It provides the opportunity for children to receive multiple services, and gives them the maximum opportunity for developmental and intellectual progression.

PPECCs allow caregivers to establish and maintain employment. It establishes trust between families and primary care providers which increases collaboration in the care provided to the child. It also decreases hospitalization rates and provides early detection of health problems in participating children.

Children and their families need targeted community-based supports that do not overly rely on acute or subacute care. Families of CMC need the same type of resources that families of typically developing peers can access, such as daycare. PPECCs provide this type of common resource that most families rely on and use. Every child in Virginia deserves to be supported in a community-based setting where most, if not all, of their needs can be properly addressed while living at home.

PPECCs offer a comprehensive community-based model of care, including skilled nursing care, therapeutic services, care coordination, parent education, and educational opportunities. Physicians refer children and families to PPECC services based on a child's skilled nursing, therapeutic, and respite care needs. Physicians remain involved in the child's coordination of care to ensure the child benefits from utilizing a PPECC. PPECCs provide transportation and are reimbursable by insurance, including Medicaid, in other states. Virginia Medicaid and Medicaid Waiver services, currently only allow either in-home nursing, direct support care, or residential placement. These programs do offer invaluable intervention services for children ages 0-5 in an out-of-home environment where socialization is a priority. However, PPECCs offer families daily respite opportunities more in line with their needs. (Ruppert and Host 2008) School age children can participate in before and after school care and winter/summer break care to prevent social isolation and therapeutic regression during periods when school is out. For older youth with complicated medical needs, PPECCs provide a place for a supportive and monitored transition into adulthood (S. Kirk 2008). These centers provide comprehensive care for children with medical complexities and their families.

Other states are also trying to find resources that offer community-based options to children with medical complexities. The Pediatric Complex Care Association (PCCA) is a national consortium of professionals that provide care for individuals with complex medical conditions in various types of care settings, including PPECCs and residential care. Two of Virginia's pediatric long-term care facilities are part of this association: Virginia Commonwealth University's pediatric long-term care facility and St. Mary's Home for Disabled Children. In a white paper written for the Centers for Medicaid and Medicare, PCCA suggests that, even while residential care cuts costs related to expensive hospital stays, there are significant gaps in services including a lack of community-based programs, such as PPECCs. Many of the PCCA residential care programs in other states include PPEC services and overnight respite care to

offer a more comprehensive system of support to children with medical complexities and their families.

PPEC could potentially cut costs associated with services provided to CMC and their families. Other states have reported cost savings, and the work group recommends further research to determine if the same savings could be possible in Virginia.

Needs Assessment

Virginia has a unique geographic area with a diverse population. One section of the population is the Children and Youth with Special Health Care Needs (CYSHCN). Since 1998, the Maternal and Child Health Bureau has defined CYSHCN children as:

> Children who have or are at increased risk of chronic physical, developmental, behavioral, or emotional conditions and require health care and related services of a type or amount beyond that required by children generally (Cohen, et al. 2011).

An estimated 13.5 million children in this country, or approximately 20% of U.S. children under age 18 years of age, have a special health care need. CYSHCN and their families often need services from multiple systems—health care, public health, education, mental health, and social services (National Survey of Children's Health 2020). Nearly 27% of all CYSHCN have functional limitations and almost 20% have a degree of limitation that is considered to be consistently or significantly limited functionality (National Survey of Children's Health 2020) (Kuo, Cohen, et al. 2011).

Characteristics of CMC

Identifying a child with medical complexities is difficult because there is no specific information on this pediatric sub-set, which means that no universal definition exists that a state can easily use to generate state-level data. CMCs have significant multiple chronic health problems that affect multiple organ systems and result in functional limitations, high health care need or utilization, and often the need for medical technology to survive (Kuo and Houtrow 2016). CMCs have a difficult time getting their needs recognized and met. Care for most CMCs is fragmented, uncoordinated, and crisis-focused with tendencies to over-medicalize the child and under-support the child's family caregivers (Berry, et al. 2013).

Regardless of the diagnosis or cause for complexity, CMCs all share characteristics that require certain functional and clinical needs, including:

(1) Intensive hospital and/or community-based service needs,
(2) Reliance on technology, polypharmacy, and/or home care or congregate care to maintain a basic quality of life,
(3) Risk of frequent and prolonged hospitalization, which leads to high health-resource utilization, and
(4) An elevated need for care coordination (Cohen, et al. 2011).

Additionally, many CMC are technologically dependent, requiring both a medical device to compensate for the loss of a vital body function and significant care to avert further disability. (Cohen, et al. 2011)

Diagnoses common among CMCs include cerebral palsy, spina bifida, various neurological conditions, complications of prematurity, chronic lung disease, cardiac disease or defects, failure to thrive, seizure disorders, fetal alcohol syndrome, orthopedic conditions, and genetic disorders. These children often have technologic dependency of tracheostomy with or without ventilator dependence; feeding tubes including naso-gastric tubes, gastric tubes, and jejunostomy tubes; intermittent need for bladder catheterization; and ostomies or continuous oxygen needs. CMCs, at some point in their lives, will almost always require some level of skilled nursing care that is usually coupled with intensive therapeutic and functional support needs.

These technological dependencies and functional limitations often prevent the child from being included in community-based resources and almost always exclude a child from participating in traditional daycare settings. Intensive therapeutic and clinical efforts early in life, especially from birth through 5 years, can reduce the impact of the complexity on them later in life (Cohen, et al. 2011) (Ruppert and Host 2008).

Current Environment for CMC in Virginia

According to the Data Resource Center for Child and Adolescent Health, in Virginia, 19.3% of all children are a type of CYSHCN. Only an estimated 15% of those children receive care in a well-functioning system. CMCs need a functioning system to provide the coordinated care that they need. Virginia needs to carefully consider these children's dynamic health care needs as the state begins to diversify the resource landscape available to CYSHCN both with and without intellectual and developmental disabilities, including CMCs.

The prematurity rate in Virginia is approximately 9.6%, but there are great differences in prematurity based on ethnic identity. American mothers of European ancestry have a rate of only 8.5% of live births that results in prematurity. American mothers with African ancestry, however, have a rate of 13.2%. American mothers of Native American heritage had 12.5% of their births result in a premature baby (March of Dimes 2021). These differences in birth outcomes show the significant disparities for families who are more likely to have a premature baby, who then has the potential to develop into a child with medical complexity. These families need access to options for premature baby care that allows them to continue to support themselves while caring for a more complex child in their family home.

Some attention has been paid at the federal and state levels to the need to offer services for young children who are at risk for, or are known to have, disabilities. Early Interventions (EI) services are offered to children in Virginia, but the services have age-limits and may not meet the holistic needs of CMCs and their families. All CMCs need early intervention services and are likely already represented in existing state efforts. With the primary emphasis of EI being on the therapeutic needs of the child and educating the family on advocacy, community-based supports are lacking. This means that the family is often left to make difficult decisions about careers, education, self-care, and finances.

To date, there has been no data collected on CMCs within Virginia. However, in consultation with DMAS, research was done to identify existing CMCs within Virginia who already have Medicaid. DMAS compiled data using the Medicaid data set and the most reported diagnostic codes associated with CMCs from the Pediatric Medical Complexity Algorithm 3.0 version.

Below is the DMAS chart generated using the specific diagnostic and procedural codes in the Commonwealth's existing Medicaid system (see Appendix D). The chart reports on the larger categories, such as cerebral palsy and spina bifida, and then looks within those larger diagnostic categories for children who have technological dependency or intensive skilled nursing care needs. This was done because a child with certain types of cerebral palsy would not necessarily qualify for a PPEC service, but a child with cerebral palsy and a g-tube would qualify. Children within known neurological and neuromuscular categories were only cross referenced for one device usage, meaning that a child who has cerebral palsy and a g-tube and a tracheotomy would be counted twice in the table below.

Category	SFY19	SFY20
Distinct Count of ENROLLEES	**14,136**	**14,034**
Neurologic and Neuromuscular	**9,530**	**9,427**
with Neuro Device	*964*	*926*
with GI Device	*1,951*	*2,031*
with Urological Device	*61*	*61*
with Respiratory Device	*582*	*578*
Cardiovascular	**4,015**	**3,967**
with GI Device	*651*	*760*
Respiratory	**2,006**	**2,112**

- **Distinct Count of Enrollees:** A distinct count of individuals identified within any category in the report by State Fiscal Year (July through June).
- **Categories (Neurologic and Neuromuscular, Cardiovascular, and Respiratory):** Each column provides a distinct count of members who had at least one diagnosis code for that specific category.
- **Device Subcategories:** Each column provides a distinct count of members who had at least one diagnosis code for that specific category AND at least one of the referenced device codes.

This process yielded approximately 14,000 children aged 0 to 21 years old in Virginia who fell within certain categories that indicate medical complexity. Those children were then cross-referenced for use of medical devices or procedures. This yielded an estimate of about 6,480 children who currently live in Virginia, already have Medicaid, are under 21, and would be eligible for PPEC services in other states. Some important limitations of this data are that only one system (DMAS) was used and not all CMCs are in the DMAS system. Medical complexity is not a diagnosis; therefore, it is challenging to piece together and measure which children are

medically complex. For example, children with developmental delays and children who were born prematurely may take years to get an official diagnosis of cerebral palsy, and technological dependency usually presents itself as a need as the child ages. This DMAS-generated number is only an estimate and further investigation into data collection is needed.

The Office of Integrated Health in the Department of Behavioral Health and Developmental Services (DBHDS) reported that approximately 57 children are awaiting discharge from a hospital to a pediatric long-term care facility. These children fit the DBHDS Preadmission Screening and Resident Review criteria to be in a nursing facility. Along with their individual diagnoses, at least 31 of these children require a tracheostomy, 14 rely on mechanical ventilation, 50 have a feeding tube of some sort, six required mechanical ventilation at night, one is receiving continuous oxygen via nasal cannula, and two require intermittent mechanical ventilation support.

There are four long-term care facilities in the state that provide out-of-home placement for CMCs: Children's Hospital of Richmond at Virginia Commonwealth University (VCU), St. Mary's Home for Disabled Children (Norfolk), Lake Taylor Transitional Care Hospital (Norfolk), and the Iliff Nursing and Rehabilitation Center (Dunn Loring). Approximately 32 eligible children reside at Children's Hospital of Richmond at VCU. St. Mary's Home for Disabled Children is licensed for 88 pediatric beds, most of which are filled with CMCs with disabilities. Lake Taylor's pediatric long-term care unit has 25 beds. Iliff pediatric skilled nursing home has a dedicated pediatric wing with an undetermined number of beds. There are four nursing agencies in Virginia that provide private duty nursing for pediatric patients in the Commonwealth. Two of these nursing agencies reported over 100 children awaiting pediatric nursing care services who would likely qualify for PPEC services.

Work Group Recommendations

The work group recommends moving forward with implementing and licensing PPECCs. The following recommendations for how to do this are based on the intensive research completed for this report. These recommendations include:

1. The work group recommends the Commonwealth move forward with creating PPECCs based on the needs assessment conducted by DMAS. The needs assessment estimated that there are approximately 14,000 children in the Commonwealth who would be eligible for PPECCs.

2. The work group developed a licensure plan for the creation of PPECC in Virginia. The plan includes provisions for the construction, maintenance, operation, staffing, and management of PPECCs and the nature and scope of services to be provided.

   A. Construction

   The construction or renovation of a PPECC building should comply with all state and local requirements pertaining to building construction standards, including plumbing, electrical code, glass, and accessibility for the physically disabled. PPECC should also comply with the minimum facility standards.

B. Maintenance

To provide safe and sanitary facilities and healthful programs, the licensing agency should adopt facility standards that prioritize:

(a) The adoption and implementation of policies and procedures that assure the health and safety of children;
(b) Maintenance based upon the size of the structure and the number of children, relating to plumbing, heating, lighting, ventilation and other building conditions. Providing adequate space will ensure the children's health, safety, comfort and protection from fire and other hazardous conditions;
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(d) Contract and other operational and transportation services.

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The nature and scope of the operation and management of PPECC services should include the following:

- The coordination of emergency transportation arrangements with the city/county emergency operation services. The PPECC should ensure an adult staff member accompanies the child on any emergency transport.
- A documented preventative maintenance program with specific emphasis on ensuring that all durable medical equipment functions correctly and safely to ensure children's health and safety.
- The PPECC should maintain medical records, data, and information relative to the children and programs in the facility for inspection by the licensing agency.
- Appropriate and readily available emergency services that include an emergency drug kit, a crash cart with a defibrillator appropriate for children, and any other emergency services appropriate to the needs of the children at the center.
- A written disaster plan that addresses natural disasters, weather emergencies, bomb threats, emergency drills, manufactured disasters, and financial disasters.
- Immediate reporting to the licensing agency of any incidents and accidents that affect the health, safety, and welfare of a child.
- Documentation of all incidents and accidents.
- Coordination and collaboration with other agencies that may serve the child, such as early intervention and the local school district.

D. Staffing Recommendations

The licensing agency should establish appropriate staffing requirements. The staff responsible for providing basic and supportive services should comply with all health professional licensing statutes and regulations promulgated by the appropriate licensing board. Staffing recommendations include:

- An administrator who is either a physician with a current license, a nurse practitioner, a licensed nursing home administrator, a child daycare director or registered nurse with at least five years of service in pediatric medicine.

- A medical director who is responsible for basic and supportive services, including medical, pharmaceutical, and nursing services. The medical director should ensure the governing body has developed, approved, and implemented policies and procedures regarding the operations of the PPECC. These policies and procedures should include the prevention, reporting, and investigation of abuse; the delivery of medical and therapeutic services; the control and delivery of pharmaceutical services; and infection control and policies for prevention of incidents and accidents.
- A supervisor that holds a valid professional license issued by the Virginia Board of Medicine, Virginia Board of Nursing, Occupational Therapy Advisory Board, Virginia Board of Pharmacy, Virginia Board of Physical Therapy, or the Virginia Board of Audiology and Speech-Language Pathology.
- A direct care staff member who is one of the following: licensed professional nurse, registered nurse, physical therapist, occupational therapist, speech-language pathologist, or an individual with a high school diploma or equivalent and at least one year of documented and supervised experience in a health care or child care setting.
- Staffing/caregiver ratios should be established to ensure safe and appropriate care.
- A documented orientation and staff development program should be mandated to ensure employees and contracted staff are adequately trained to provide services to children.

E. Services

The services provided should include skilled nursing, physical therapy, occupational therapy, speech therapy, education, meals, snacks, transportation, and family education. These services will promote and maintain the health and development of the children and will assist with the training of the children's parents or legal guardians. Each child attending the PPECC will have an individualized plan of care designated by the child's attending physician, the PPECC treatment team, a parent or legal guardian, and, when appropriate, the child. No child should attend a PPECC for more than 12 hours within a 24-hour period. A PPECC should not provide services other than those typically provided to medically dependent or technologically dependent children.

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Appendix A
Legislative Mandate

CHAPTER 929

An Act to require the Commissioner of Social Services to convene a work group to develop a plan for licensure of prescribed pediatric extended care centers in the Commonwealth; report.

[HB 1719]

Approved April 9, 2020

Be it enacted by the General Assembly of Virginia:

1. *§ 1. That the Commissioner of Social Services (the Commissioner) shall establish a work group, which shall include representatives of the Departments of Health Professions, Medical Assistance Services, and Social Services, pediatric health care providers, and such other stakeholders as the Commissioner may deem appropriate, to develop a plan for the licensure of prescribed pediatric extended care centers in the Commonwealth. Such plan shall include provisions for the construction, maintenance, operation, staffing, and management of prescribed pediatric extended care centers and the nature and scope of services to be provided by prescribed pediatric extended care centers in the Commonwealth. The work group shall report the plan to the Governor and the Chairmen of the House Committee on Health, Welfare and Institutions and the Senate Committee on Education and Health by November 1, 2020.*

Appendix B

Work Group Members

Virginia Department of Social Services, Division of Licensing Programs

Laura Brindle, Licensing Inspector
Kandra Brown, Licensing Inspector
Melissa Currier, Associate Director, Senior
Janice Sigler, Program Consultant
Marina Sinyard, Nurse Consultant
Rhonda Whitmer, Licensing Inspector

Department of Health Professions

Barbara Allison-Bryan, MD, Chief Deputy Director

Department of Behavioral Health and Developmental Services

John Cimino, JD, Legal and Regulatory Manager, Office of Licensing
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Andrew Mitchell, Senior Policy Advisor
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Brittani Crenshaw, RN

Parent Advocate

Crystal Ton, MA, MPH

Pediatricians

Katrina Lesher, MD, Children's Specialty Group,
Medical Director, Pediatric PM&R Services, Children's Hospital of the King's Daughters

Appendix C

PPECC in Other States

State	State Agency with Oversight	Hyperlink to Code
Delaware	Delaware Health and Social Services Division of Health Care Quality Office of Health Facilities Licensing and Certification	https://codes.findlaw.com/de/title-16-health-and-safety/de-code-sect-16-122.html https://regulations.delaware.gov/AdminCode/title16/Department%20of%20Health%20and%20Social%20Services/Division%20of%20Public%20Health/Health%20Systems%20Protection%20(HSP)/4409.shtml
Florida	Florida Agency for Health Care Administration	https://codes.findlaw.com/fl/title-xxix-public-health/fl-st-sect-400-901.html https://www.flrules.org/gateway/ChapterHome.asp?Chapter=59A-13 – Rules
Kentucky	Cabinet for Health and Family Services Division of Health Care	State Code: https://codes.findlaw.com/ky/title-xviii-public-health/ky-rev-st-sect-216-875.html https://www.pdf-book-search.com/pediatric/prescribed-pediatric-extended-care-kentucky.html Application: https://chfs.ky.gov/agencies/os/oig/dhc/Pages/ltcapplications.aspx
Minnesota	Minnesota Department of Health	State Code: https://www.revisor.mn.gov/statutes/ "PPEC is a proven model that will improve access for care for families seeking an alternative choice to prolonged hospital stays when nursing is unavailable. Support HF 1522/SG 1970 to provide this crucial service for our most vulnerable population." https://www.pediatrichomeservice.com/about/legislative-efforts/legislation-mn/ https://www.revisor.mn.gov/search/doc_result.php?keyword=%22Prescribed+pediatric+extended+care%22&keyword_type=all&stat=1&

		search=stat&stat_year1=2019&stat_year2=2019&stat_chapter= https://www.revisor.mn.gov/statutes/2019/cite/144H.01?keyword_type=all&keyword=Prescribed+pediatric+extended+care – Definitions https://www.health.state.mn.us/facilities/regulation/ppec/index.html - Info and Forms
Mississippi	State Department of Health Division of Health Facilities Licensure and Certification	State Code: https://law.justia.com/codes/mississippi/2018/#:~:text=2018%20Mississippi%20Code.%201%20Title%201%20-%20Laws,and%20County%20Officers%20%28Chs.%201%20-%2031%29%20 https://law.justia.com/codes/mississippi/2017/title-41/chapter-125/ Approved by CMS - https://medicaid.ms.gov/spa-19-0002-prescribed-pediatric-extended-care-ppec-approved-by-cms/ Licensed by DOH - https://msdh.ms.gov/msdhsite/index.cfm/30,0,83,html
Pennsylvania	Department of Health	State Code: https://www.health.pa.gov/topics/facilities/Pages/Pediatric.aspx https://www.legis.state.pa.us/WU01/LI/LI/US/HTM/1999/0/0054..HTM
Texas	Texas Health and Human Services	State Code: https://statutes.capitol.texas.gov/Search.aspx https://statutes.capitol.texas.gov/SearchResults.aspx?CP=1&Code=ZZ&Phrase=%22prescribed+pediatric+extended+care%22 – 5 matches https://hhs.texas.gov/doing-business-hhs/provider-portals/long-term-care-providers/prescribed-pediatric-extended-care-centers-ppecc

http://www.tmhp.com/Manuals_PDF/CSHCN/CSHCN_Living_ManualCurrent/33_PPEC.pdf - Prescribed Pediatric Extended Care Centers

http://www.tmhp.com/TMHP_File_Library/Enrollment%20and%20reenrollment/pep-for-ppecc-v2016-1205.pdf - To Enroll as a Medicare Provider

Appendix D

DMAS Supporting Documents

Appendix Table: Categories of CCC v2 and the Corresponding ICD-9 and ICD-10 Diagnosis and Procedure Codes

Categories	Subcategories	ICD-9	ICD-10
Neurologic and Neuromuscular	Brain and spinal cord malformations	740.0-742.9	Q00-Q07, G90.1
	Mental retardation	318.0-318.2	F71-F73
	CNS degeneration and diseases	330.0-330.9, 334, 335.0-335.9, 331.1, 331.11, 331.19, 331.4, 331.8, 331.89, 331.9, 333.2, 336.1, 336.8, 337.9, 759.5	E75.0, E75.1, E75.2, E75.4, F84.2, G11.1-G11.4, G11.8, G11.9, G12.0-G12.2, G12.8, G12.9, G31.01, G31.09, G31.8, G31.89, G32.89, G93.8, G93.9, G94, G91.1, G31.9, G25.3, G95.19, G95.89, G90.9, Q85.1
	Infantile cerebral palsy	343.0-343.9	G80
	Epilepsy	345.01, 345.11, 345.3, 345.41, 345.61, 345.71, 345.81, 345.91	G40.311, G40.301, G40.211, G40.219, G40.411, G40.419, G40.111, G40.119, G40.804, G40.911, G40.919
	Other disorders of CNS	341.8, 342.90, 344.0, 344.81, 344.9, 348.1, 348.4, 780.03, 01.52, 01.53	G37.1, G37.2, G37.8, G81.90, G82.90, G82.50-G82.54, G83.5, G83.9, G93.1, G93.5, R40.3, 0016070, 0016071, 0016072, 0016073, 0016074, 0016075, 0016076, 0016077, 0016078, 001607B, 0016370, 0016371, 0016372, 0016373, 0016374, 0016375, 0016376, 0016377, 0016378, 001637B, 001U074, 001U076, 001U077, 001U079, 001U374, 001U376, 001U377, 001U379, 00B70ZZ, 00B73ZZ, 00B74ZZ, 00T70ZZ, 00T73ZZ, 00T74ZZ
	Occlusion of cerebral arteries	434.01, 434.91	I63.30, I63.50
	Muscular dystrophies and myopathies	359.0-359.3	G71, G72
	Movement diseases	332.0, 332.1, 333.0, 333.2,33.4, 333.5, 333.7, 333.9	G10, G20, G21.0, G21.11, G21.19, G21.8, G23.0-G23.2, G23.8, G24.02, G24.8, G25.3-G25.5, G25.81-G25.83, G25.89, G25.9, G80.3
	Devices	996.2, 996.63, V45.2, V53.01, V53.02, 02.2, 02.21, 02.22, 02.3, 02.31, 02.32, 02.33, 02.34, 02.35,	T85.09XA, T85.190A, T85.192A, T85.199A, T85.79XA, Z98.2, Z45.41, Z45.42, 00160J0, 00160J1,

		02.39, 02.4, 02.41, 02.42, 02.93, 03.7, 03.71, 03.72. 03.79, 03.93, 03.97, 04.92	00160J2, 00160J3, 00160J4, 00160J5, 00160J6, 00160J7, 00160J8, 00160JB, 00160K0, 00160K1, 00160K2, 00160K3, 00160K4, 00160K5, 00160K6, 00160K7, 00160K8, 00160KB, 00163J0, 00163J1, 00163J2, 00163J3, 00163J4, 00163J5, 00163J6, 00163J7, 00163J8, 00163JB, 00163K0, 00163K1, 00163K2, 00163K3, 00163K4, 00163K5, 00163K6, 00163K7, 00163K8, 00163KB, 001U0J4, 001U0J6, 001U0J7, 001U0J9, 001U0K4, 001U0K6, 001U0K7, 001U0K9, 001U3J4, 001U3J6, 001U3J7, 001U3J9, 001U3K4, 001U3K6, 001U3K7, 001U3K9, 009600Z, 009630Z, 009640Z, 00H00MZ, 00H03MZ, 00H04MZ, 00H60MZ, 00H63MZ, 00H64MZ, 00HE0MZ, 00HE3MZ, 00HE4MZ, 00HU0MZ, 00HU3MZ, 00HU4MZ, 00HV0MZ, 00HV3MZ, 00HV4MZ, 00W60JZ, 00W63JZ, 00W64JZ, 00WU0JZ, 00WU3JZ, 00WU4JZ, 01HY0MZ, 01HY3MZ, 01HY4MZ, 0DH60MZ, 0DH63MZ, 0DH64MZ, 0W110J9, 0W110JB, 0W110JG, 0W110JJ, 3E1Q38X, 3E1Q38Z
	Transplantation	N/A	N/A
Cardiovascular	Heart and great vessel malformations	745.0-745.3, 745.60-745.69, 746, 747.1-747.49, 747.81, 747.89, 35.8, 35.81, 35.82, 35.83, 35.84	Q20, Q21.2-Q24, Q25.1-Q26, Q28.2, Q28.3, Q28.9, 02170ZP, 02170ZQ, 02170ZR, 02BK0ZZ, 02LR0ZT, 02LS0ZZ, 02LT0ZZ, 02NH0ZZ, 02RK0JZ, 02RL0JZ, 02RM0JZ, 02RP0JZ, 02RQ07Z, 02RQ0JZ, 02RR07Z, 02RR0JZ, 02SP0ZZ, 02SW0ZZ, 02U70JZ, 02UA0JZ, 02UA3JZ, 02UA4JZ, 02VR0ZT, 02WA0JZ
	Endocardium diseases	424.0, 424.2, 424.3	I34.0, I34.8, I36.0, I36.8, I37.0, I37.8
	Cardiomyopathies	425.0-425.4, 425.8, 429.1	I42, I43, I51.5
	Conduction disorder	426.0-427.4	I44, I45, I47, I48, I49.0
	Dysrhythmias	427.6-427.9	I49.1-I49.5, I49.8, I49.9, R00.1
	Other	416.1, 416.8, 416.9, 428.0, 429.3, 428.83, 433.11, V45.81	I27.0, I27.1, I27.2, I27.81, I27.89, I27.9, I50.9, I51.7, I51.81, I63.139, I63.239, Z95.1
	Devices	996.0, 996.1, 996.61, 996.62, V43.3, V45.0, V53.31, V53.32, V53.39, 00.50, 00.51, 00.53, 00.54, 00.55, 00.57, 17.51, 17.52, 37.41, 37.52, 37.53, 37.54, 37.55, 37.6, 37.60,	T82.519A, T82.529A, T82.539A, T82.599A, T82.110A, T82.111A, T82.120A, T82.121A, T82.190A, T82.191A, T82.01XA, T82.02XA, T82.03XA, T82.09XA, T82.211A,

		37.61, 37.63, 37.65, 37.66, 37.67, 37.68, 37.7, 37.71, 37.72, 37.74, 37.76, 37.79, 37.8, 37.80, 37.81, 37.82, 37.83, 37.85, 37.86, 37.87, 37.89, 37.94, 37.95, 37.96, 37.97, 37.98, 39.81, 39.82, 39.83, 39.84, 39.85, 89.46, 89.47, 89.48, 89.49	T82.212A, T82.213A, T82.218A, T82.221A, T82.222A, T82.223A, T82.228A, T82.518A, T82.528A, T82.538A, T82.598A, T82.6XXA, T82.7XXA, Z95.0, Z95.2, Z95.3, Z95.810-Z95.812, Z95.818, Z45.010, Z45.018, Z45.02, Z45.09, Z95.9, 02H40JZ, 02H40KZ, 02H43JZ, 02H44JZ, 02H44KZ, 02H60JZ, 02H60KZ, 02H63JZ, 02H63KZ, 02H63MZ, 02H64JZ, 02H64KZ, 02H70KZ, 02H73JZ, 02H73KZ, 02H73MZ, 02H74KZ, 02HA0QZ, 02HA0RS, 02HA0RZ, 02HA3QZ, 02HA3RS, 02HA4QZ, 02HA4RS, 02HK0JZ, 02HK0KZ, 02HK3JZ, 02HK3KZ, 02HK3MZ, 02HK4JZ, 02HK4KZ, 02HL0JZ, 02HL0KZ, 02HL0MZ, 02HL3JZ, 02HL3KZ, 02HL3MZ, 02HL4JZ, 02HL4KZ, 02HL4MZ, 02HN0JZ, 02HN0KZ, 02HN0MZ, 02HN3JZ, 02HN3KZ, 02HN3MZ, 02HN4JZ, 02HN4KZ, 02HN4MZ, 02WA0QZ, 02WA0RZ, 02WA3QZ, 02WA3RZ, 02WA4QZ, 02WA4RZ, 03HK0MZ, 03HK3MZ, 03HK4MZ, 03HL0MZ, 03HL3MZ, 03HL4MZ, 03WY0MZ, 03WY3MZ, 03WY4MZ, 0JH600Z, 0JH605Z, 0JH606Z, 0JH607Z, 0JH608Z, 0JH609Z, 0JH60AZ, 0JH60MZ, 0JH60PZ, 0JH630Z, 0JH635Z, 0JH636Z, 0JH637Z, 0JH638Z, 0JH639Z, 0JH63AZ, 0JH63MZ, 0JH63PZ, 0JH70MZ, 0JH73MZ, 0JH800Z, 0JH805Z, 0JH806Z, 0JH807Z, 0JH808Z, 0JH809Z, 0JH80AZ, 0JH80MZ, 0JH80PZ, 0JH830Z, 0JH835Z, 0JH836Z, 0JH837Z, 0JH838Z, 0JH839Z, 0JH83AZ, 0JH83MZ, 0JH83PZ, 0JWT0MZ, 0JWT0PZ, 0JWT3MZ, 0JWT3PZ, 0JWTXMZ, 4B02XSZ, 4B02XTZ, 5A02110, 5A02116, 5A0211D, 5A02210, 5A02216, 5A0221D
	Transplantation	996.83,V42.1, V42.2, V43.2, 37.5, 37.51	T86.20-T86.22, Z94.1, 02YA0Z0, 02YA0Z1, 02YA0Z2
Respiratory	Respiratory malformations	748.0-748.9	Q30-Q34, P280
	Chronic respiratory diseases	327.25, 416.2, 516.3, 516.31, 518.84, 770.4, V45.76	G47.35, I27.82, I43, J84.112, J96.20, Z90.2
	Cystic fibrosis	277.0	E84
	Other	30.3, 30.4, 32.4, 32.41, 32.49, 32.5, 32.50, 32.59	0B110Z4, 0B113Z4, 0B114Z4, 0BTC0ZZ, 0BTC4ZZ, 0BTD0ZZ, 0BTD4ZZ, 0BTF0ZZ, 0BTF4ZZ,

			0BTG0ZZ, 0BTG4ZZ, 0BTJ0ZZ, 0BTJ4ZZ, 0BTK0ZZ, 0BTK4ZZ, 0BTL0ZZ, 0BTL4ZZ, 0BTM0ZZ, 0BTM4ZZ, 0CTS0ZZ, 0CTS4ZZ, 0CTS7ZZ, 0CTS8ZZ
	Devices	519.0, V44.0, V55.0, V46.0, V46.1, 31.2, 31.21, 31.29, 31.41, 31.74, 33.21, 34.85, 96.55, 97.23	J95.00-J95.04, J95.09, Z43.0, Z93.0, Z99.0, J95.850, Z99.11, Z99.12, 0B110F4, 0B113F4, 0B114F4, 0B21XFZ, 0BHR0MZ, 0BHR3MZ, 0BHR4MZ, 0BHS0MZ, 0BHS3MZ, 0BHS4MZ, 0BW10FZ, 0BW13FZ, 0BW14FZ, 0JH604Z, 0JH634Z, 0JH804Z, 0JH834Z, 0WQ6XZ2, 3E1F78Z
	Transplantation	996.84,V42.6, 33.5, 33.50, 33.51, 33.52, 33.6	T86.810, T86.811, T86.819, Z94.2, 0BYC0Z0, 0BYC0Z1, 0BYC0Z2, 0BYD0Z0, 0BYD0Z1, 0BYD0Z2, 0BYF0Z0, 0BYF0Z1, 0BYF0Z2, 0BYG0Z0, 0BYG0Z1, 0BYG0Z2, 0BYH0Z0, 0BYH0Z1, 0BYH0Z2, 0BYJ0Z0, 0BYJ0Z1, 0BYJ0Z2, 0BYK0Z0, 0BYK0Z1, 0BYK0Z2, 0BYL0Z0, 0BYL0Z1, 0BYL0Z2, 0BYM0Z0, 0BYM0Z1, 0BYM0Z2
Renal and Urologic	Congenital anomalies	753.0-753.9	Q60-Q64
	Chronic renal failure	585	N18
	Other	V45.73, V45.74, 55.5, 55.51, 55.52, 55.53, 55.54, 56.4, 56.41, 56.42, 56.7, 56.71, 56.79, 57.7, 57.71, 57.79	Z90.5, Z90.6, 0T160Z8, 0T160ZA, 0T164Z8, 0T164ZA, 0T170Z8, 0T170ZA, 0T174Z8, 0T174ZA, 0T180Z8, 0T180ZA, 0T184Z8, 0T184ZA, 0TB60ZZ, 0TB63ZZ, 0TB64ZZ, 0TB67ZZ, 0TB68ZZ, 0TB70ZZ, 0TB73ZZ, 0TB74ZZ, 0TB77ZZ, 0TB78ZZ, 0TT00ZZ, 0TT04ZZ, 0TT10ZZ, 0TT14ZZ, 0TT20ZZ, 0TT24ZZ, 0TT60ZZ, 0TT64ZZ, 0TT67ZZ, 0TT68ZZ, 0TT70ZZ, 0TT74ZZ, 0TT77ZZ, 0TT78ZZ, 0TTB0ZZ, 0TTB4ZZ, 0TTB7ZZ, 0TTB8ZZ, 0TTD0ZZ, 0TTD4ZZ, 0TTD7ZZ, 0TTD8ZZ
	Chronic bladder diseases	344.61, 596.4, 596.53, 596.54	G83.4, N31.2, N31.9
	Devices	996.68, V44.5, V44.6, V45.1, V53.6, V55.5, V55.6, 38.95, 39.27, 39.42, 39.93, 39.94, 39.95, 54.98, 55.02, 55.03, 55.04, 55.12, 55.93, 55.94, 55.97, 56.5, 56.51, 56.52, 56.6, 56.61, 56.62, 56.72, 56.73, 56.74, 56.75, 57.2, 57.21, 57.22, 59.93, 59.94, 86.07, 96.45, 96.46, 96.47	T85.71XA, Z93.50-Z93.52, Z93.59, Z93.6, Z91.15, Z99.2, Z43.5, Z43.6, Z46.6, 031209D, 031209F, 03120AD, 03120AF, 03120JD, 03120JF, 03120KD, 03120KF, 03120ZD, 03120ZF, 031309D, 031309F, 03130AD, 03130AF, 03130JD, 03130JF, 03130KD, 03130KF, 03130ZD, 03130ZF, 031409D, 031409F, 03140AD, 03140AF, 03140JD, 03140JF, 03140KD, 03140KF, 03140ZD,

			03140ZF, 031509D, 031509F, 03150AD, 03150AF, 03150JD, 03150JF, 03150KD, 03150KF, 03150ZD, 03150ZF, 031609D, 031609F, 03160AD, 03160AF, 03160JD, 03160JF, 03160KD, 03160KF, 03160ZD, 03160ZF, 031709D, 031709F, 03170AD, 03170AF, 03170JD, 03170JF, 03170KD, 03170KF, 03170ZD, 03170ZF, 031809D, 031809F, 03180AD, 03180AF, 03180JD, 03180JF, 03180KD, 03180KF, 03180ZD, 03180ZF, 031909F, 03190AF, 03190JF, 03190KF, 03190ZF, 031A09F, 031A0AF, 031A0JF, 031A0KF, 031A0ZF, 031B09F, 031B0AF, 031B0JF, 031B0KF, 031B0ZF, 031C09F, 031C0AF, 031C0JF, 031C0KF, 031C0ZF, 03WY0JZ, 03WY3JZ, 03WY4JZ, 03WYXJZ, 05HY33Z, 06HY33Z, 0JH60WZ, 0JH60XZ, 0JH63WZ, 0JH63XZ, 0JH80WZ, 0JH80XZ, 0JH83WZ, 0JH83XZ, 0JHD0WZ, 0JHD0XZ, 0JHD3WZ, 0JHD3XZ, 0JHF0WZ, 0JHF0XZ, 0JHF3WZ, 0JHF3XZ, 0JHL0WZ, 0JHL0XZ, 0JHL3WZ, 0JHL3XZ, 0JHM0WZ, 0JHM0XZ, 0JHM3WZ, 0JHM3XZ, 0T130ZB, 0T134ZB, 0T140ZB, 0T144ZB, 0T16079, 0T1607C, 0T1607D, 0T160J9, 0T160JC, 0T160JD, 0T160K9, 0T160KC, 0T160KD, 0T160Z9, 0T160ZC, 0T160ZD, 0T163JD, 0T16479, 0T1647C, 0T1647D, 0T164J9, 0T164JC, 0T164JD, 0T164K9, 0T164KC, 0T164KD, 0T164Z9, 0T164ZC, 0T164ZD, 0T17079, 0T1707C, 0T1707D, 0T170J9, 0T170JC, 0T170JD, 0T170K9, 0T170KC, 0T170KD, 0T170Z9, 0T170ZC, 0T170ZD, 0T173JD, 0T17479, 0T1747C, 0T1747D, 0T174J9, 0T174JC, 0T174JD, 0T174K9, 0T174KC, 0T174KD, 0T174Z9, 0T174ZC, 0T174ZD, 0T18079, 0T1807C, 0T1807D, 0T180J9, 0T180JC, 0T180JD, 0T180K9, 0T180KC, 0T180KD, 0T180Z9, 0T180ZC, 0T180ZD, 0T183JD, 0T18479, 0T1847C, 0T1847D, 0T184J9, 0T184JC, 0T184JD, 0T184K9, 0T184KC, 0T184KD, 0T184Z9,

			0T184ZC, 0T184ZD, 0T1B0ZD, 0T1B4ZD, 0T25X0Z, 0T29X0Z, 0T29XYZ, 0T2BX0Z, 0T9000Z, 0T9030Z, 0T9040Z, 0T9070Z, 0T9080Z, 0T9100Z, 0T9130Z, 0T9140Z, 0T9170Z, 0T9180Z, 0T9370Z, 0T9380Z, 0T9470Z, 0T9480Z, 0TQ67ZZ, 0TQ77ZZ, 3E1K38Z, 3E1M39Z, 5A1D60Z
	Transplantation	996.81,V42.0, 55.6, 55.61, 55.69	T86.10-T86.12, Z94.0, 0TY00Z0, 0TY00Z1, 0TY00Z2, 0TY10Z0, 0TY10Z1, 0TY10Z2
Gastrointestinal	Congenital anomalies	750.3, 751.1-751.9	Q39.0-Q39.4, Q41-Q45
	Chronic liver disease and cirrhosis	571.4-571.9	K73, K74, K75.4, K760-K763, K765, K768
	Inflammatory bowel diseases	555.0-556.9	K50, K51
	Other	453.0, 557.1, 560.2, 564.7, V45.3, V45.72, V45.75, 25.3, 25.4, 42.42, 43.9, 43.91, 43.99, 45.63, 45.8, 45.81, 45.82, 45.83, 50.4, 52.6, 52.7, 54.71	I82.0, K55.1, K56.2, K59.3, Z98.0, Z90.3, Z90.49, 0CT70ZZ, 0CT7XZZ, 0D13079, 0D1307A, 0D1307B, 0D1607A, 0D160ZA, 0DT50ZZ, 0DT54ZZ, 0DT57ZZ, 0DT58ZZ, 0DT60ZZ, 0DT64ZZ, 0DT67ZZ, 0DT68ZZ, 0DT80ZZ, 0DT84ZZ, 0DT87ZZ, 0DT88ZZ, 0DT90ZZ, 0DT94ZZ, 0DT97ZZ, 0DT98ZZ, 0DTE0ZZ, 0DTE4ZZ, 0DTE7ZZ, 0DTE8ZZ, 0FT00ZZ, 0FT04ZZ, 0FTG0ZZ, 0FTG4ZZ
	Devices	536.4, V44.1-V44.4, V53.50, V53.51, V53.59, V55.1-V55.4, 42.1, 42.10, 42.11, 42.81, 43.1, 43.11, 43.19, 44.12, 44.3, 44.32, 44.38, 44.39, 46.1, 46.13, 46.2, 46.22, 46.23, 46.3, 46.32, 46.4, 46.40, 46.41, 46.43, 96.24, 96.36, 97.02	K94.20, K94.22, K94.23, K94.29, Z93.1-Z93.4, Z43.1-Z43.4, Z46.51, Z46.59, 0D11074, 0D110J4, 0D110K4, 0D110Z4, 0D113J4, 0D11474, 0D114J4, 0D114K4, 0D114Z4, 0D15074, 0D150J4, 0D150K4, 0D150Z4, 0D153J4, 0D15474, 0D154J4, 0D154K4, 0D154Z4, 0D16074, 0D160J4, 0D160J9, 0D160JA, 0D160K4, 0D160K9, 0D160KA, 0D160Z4, 0D163J4, 0D16474, 0D164J4, 0D164J9, 0D164JA, 0D164K4, 0D164K9, 0D164KA, 0D164Z4, 0D16874, 0D168J4, 0D168J9, 0D168JA, 0D168K4, 0D168K9, 0D168KA, 0D168Z4, 0D1B0Z4, 0D1B4Z4, 0D1B8Z4, 0D1H0Z4, 0D1H4Z4, 0D1H8Z4, 0D1K0Z4, 0D1K4Z4, 0D1K8Z4, 0D1L0Z4, 0D1L4Z4, 0D1L8Z4, 0D1N0Z4, 0D1N4Z4, 0D1N8Z4, 0D20X0Z, 0D20XUZ, 0D20XYZ, 0D787ZZ, 0D7E7ZZ, 0DBB7ZZ, 0DH50DZ, 0DH50UZ, 0DH53DZ, 0DH53UZ,

			0DH54DZ, 0DH54UZ, 0DH57DZ, 0DH57UZ, 0DH58DZ, 0DH58UZ, 0DH63UZ, 0DH64UZ, 0DHA3UZ, 0DHA4UZ, 0DHA8UZ, 0DN87ZZ, 0DNE7ZZ, 0DW04UZ, 0DW08UZ, 0WQFXZ2, 3E1G78Z, 3E1H78Z
	Transplantation	996.82,996.86,996.87,V42.7, V42.83, V42.84, 46.97, 50.5, 50.51, 50.59, 52.8, 52.80, 52.82, 52.83, 52.84, 52.85, 52.86	T86.40-T86.42, T86.890, T86.891, T86.899, T86.850, T86.851, T86.859, Z94.4, Z94.82, Z94.83, 0DY80Z0, 0DY80Z1, 0DY80Z2, 0DYE0Z0, 0DYE0Z1, 0DYE0Z2, 0FY00Z0, 0FY00Z1, 0FY00Z2, 0FYG0Z0, 0FYG0Z1, 0FYG0Z2, 3E030U0, 3E030U1, 3E033U0, 3E033U1, 3E0J3U0, 3E0J3U1, 3E0J7U0, 3E0J7U1, 3E0J8U0, 3E0J8U1