

Table S1: Description of the aim and type of publication and information on how CoCE were described in the initiatives.

1 st Author	Country / Region	Aim of publication	Type of publication	How is CoCE described in the study					
				Name of CoCE	Year CoCE established	Framework adapted/created	Function of CoCE	Clinical focus area of CoCE	Resources
Bitzer et al ¹	Europe	Describing the framework and characteristics of an "ideal" CoE of Sexual Medicine and Sexual Therapy	Other [#]	Centre of Excellence for Sexual Medicine	Not reported	Created by authors	Diagnosis and treatment of Sexual dysfunction. Aim to <ul style="list-style-type: none"> To provide a frame for patient-centred and relationship-based care To provide multidisciplinary diagnostic assessment, individualized therapeutic options, documentation and follow-up of patients Provide training for medical students, residents and fellows 	Sexual medicine	Personnel <ul style="list-style-type: none"> Multi-disciplinary team Infrastructure <ul style="list-style-type: none"> A room for counselling/therapy Examination room
Burkett et al ²	Not reported	To present the concept of "centers of excellence" and how they are applied to spine care. Provided an overview of spinal CoE.	Book chapter	Spine Centre of Excellence	Not reported	Not reported	<ul style="list-style-type: none"> To achieve exceptional quality of spine care at lower cost. To establish a regional presence and a robust patient population. To demonstrate that the organization meets high performance standards. To stand out among other area institutions. 	Spinal surgeries	Personnel <ul style="list-style-type: none"> Specialties involved may include neurosurgery, orthopaedic surgery, rehabilitation, occupational therapy and physical therapy, pain management, specialized nursing, radiology, behaviour medicine, and psychiatry
Campbell et al ³	India	Examines the evolution of a Centre of excellence as an innovative model for sustainable cleft care in the developing world	Research article*	Operation Smile Guwahati Comprehensive Cleft Care Center (GCCCC)	2009	Created by authors and collaborators from Operation Smile	To provide standardized and comprehensive cleft care at one institution, with vision of making Assam a cleft-free state.	Cleft palate	Personnel <ul style="list-style-type: none"> Healthcare professionals in multiple disciplines Infrastructure <ul style="list-style-type: none"> Modern surgical suite and clinical space Modern integrated operating suite, advanced surgical equipment, sophisticated anaesthesia and monitoring capabilities
Carvalho and Jill ⁴	USA	To describe designation process of Centres of Excellence in obstetric ant	Other [#] & Website	CoE for Anaesthesia Care of Obstetric Patients	2018	The criteria for Centres of Excellence designation, which covers all aspects	CoE designation process is designed to recognize institutions and programs that demonstrate excellence in obstetric anaesthesia care, to set a benchmark level of expected care to	Obstetric Anaesthesia and Perinatology	Personnel <ul style="list-style-type: none"> Obstetric anaesthesiologist 24/7 coverage of obstetric patients by at least 1 anaesthesiologist

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						of obstetric anaesthesia care, were generated by expert consensus and incorporate evidence-based recommendations.	improve the standards nationally, and to provide a broad surrogate quality metric of institutions providing obstetric anaesthesia care.		Equipment <ul style="list-style-type: none"> Includes access to blood transfusion equipment and supplies, access to resuscitation and intubation equipment and supplies
Casanueva et al ⁵ & Tritos ⁶	International	To describe the criteria for developing Pituitary Tumors CoE	Other [#] & Website	Pituitary Tumor Centers of Excellence (PTCOE)	Criteria disseminated 2017	Expert working group drafted framework. The draft was modified and approved by the Board of Directors of the Pituitary Society. The document was presented to international groups, modified and endorsed.	<ul style="list-style-type: none"> Provide the best multidisciplinary care for patients with pituitary tumours and related pathologies. Advance pituitary science Provide adequate patient education and community outreach. Act as a training centre for residents in the treatment of pituitary Pathologies Advise health administrators and authorities on specific problems. 	Patients with pituitary tumours	Personnel <ul style="list-style-type: none"> Medical specialists Multidisciplinary supports Basic requirements for surgical training and endocrinologist training listed.
Chang et al ⁷ & Lymphatic Education & Research Network ⁸	USA	To describe the steps taken to establish standards for Centres of Excellence for Lymphatic Disease Described 5 categories of Centres of Excellence: <ul style="list-style-type: none"> Comprehensive Centre of Excellence Network of Excellence Referral Network of Excellence Lymphatic Disease Surgery Centre of Excellence Lymphatic Disease Conservative Care Centre of Excellence. 	Research article*, website	Lymphatic Education and research network CoE	Criteria published 2021	Lymphatic Education and Research Network initiated a Centres of Excellence program to designate institutions that provide services for lymphatic disease patients	<ul style="list-style-type: none"> Provide multidisciplinary clinical care Provide professional and lay education Involvement in clinical research Work with local and international CoCEs to continually improve the lives of people with LD and their families.	Lymphatic disease	Personnel <ul style="list-style-type: none"> Multi-disciplinary input Suggested expertise requirements listed in detail Resources <ul style="list-style-type: none"> Assessment tools listed

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Choque-Velasquez et al ⁹	Peru	To describe the development of Neurosurgical Centre of Excellence in Peru	Research article*	Specialized Neurosurgical Centre of Excellence	2016	Not specified what process used	To improve the treatment of neurosurgical diseases in the region, thus optimising their outcomes and decreasing transfers to the neurosurgical departments in the capital district	Specialty neurosurgical centre, Peru	Personnel <ul style="list-style-type: none"> • Staff training by neurosurgeons and nurses from Finland Equipment <ul style="list-style-type: none"> • Equipment provided/repared Other <ul style="list-style-type: none"> • Neurosurgical protocols developed
Coon et al ¹⁰	USA	Introduced key aspects of coordinated care for patients with MSA and their caregivers, discuss various outcome measures, and share experiences from two centers with multidisciplinary clinics.	Other [#]	Multiple System Atrophy CoE	Multiple Centres discussed. Established between 2015 - 2019.	Created by authors but process not described	Not reported	Multiple System Atrophy	Personnel <ul style="list-style-type: none"> • Multi-disciplinary team
Creehan et al ¹¹	USA	Describe the development of a framework for Centres of Pressure Ulcer Prevention Excellence	Research article*	Centers for Pressure Ulcer Prevention Excellence	The process developed in 2014	Framework developed using Donabedian model. Systematic literature reviews, analysis of exemplars, and nominal group process techniques were used to create the framework, based on 4 Magnet Model domains.	Inspirational centre - to develop a framework. Aim to achieve and sustain reductions in avoidable hospital-acquired pressure ulcers	Pressure ulcer	Personnel <ul style="list-style-type: none"> • Frontline staff engagement and hospital • Administrator • Leadership
Daming et al ¹²	USA	A guide for creating a center of excellence for prenatal care for women with cardiovascular disease.	Other [#]	Maternal Cardiac CoE	2014	Developed a 3 staged framework (vision-> design and development -> implement, monitor and review).	To manage pregnant women consistently and systematically with heart disease.	Maternal cardiac health	Personnel <ul style="list-style-type: none"> • Program coordinator • Multi-disciplinary team (recommendation provided for speciality) Infrastructure: <ul style="list-style-type: none"> • Dedicated outpatient clinic

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Deshmukh et al ¹³	India	To evaluate the impact of the Centre of Excellence at Vidya Shikshan Prasarak Mandal Dental College and Research Centre	Research article*	Centre of Excellence at Vidya Shikshan Prasarak Mandal Dental College and Research Centre	2016	The present CoE model was planned and executed with consensus building for 12 months using several methods to involve stakeholder groups (staff, students and patients)	<ul style="list-style-type: none"> To provide comprehensive oral healthcare for economically disadvantaged groups in rural India. To foster organisational development through an integrated approach. To stand out as a pioneer in Central Indian region in the fields of maxillofacial rehabilitation and oral implantology. 	Oral healthcare	Personnel <ul style="list-style-type: none"> Academic faculty, consultants and post-graduate students
Dietz et al ¹⁴	USA	Summary of best practices for the prevention and treatment of PJI within the context of a CoE.	Case report^	Centers of Excellence in Addressing Periprosthetic Joint Infection	Not reported	Creating a basis for framework within the literature, based on work on musculoskeletal infection symposium	Centers of Excellence provide better overall outcomes and lower financial, physical, and emotional costs to the patient, thus providing a greater value by decreasing variability in treatment pathways and incorporating best practices based on evidence.	Periprosthetic joint infection	Personnel <ul style="list-style-type: none"> Multi-disciplinary teams Equipment <ul style="list-style-type: none"> Electronic medical records Others <ul style="list-style-type: none"> Protocols for pre-operative screening and evaluation Risk reduction protocols and processes
Distiller and Brown ¹⁵	South Africa	Not reported	Book Chapter	Centres for Diabetes Excellence	1994	Not reported	To improve diabetes management and provide “one-stop shop” for patients. With all services in one place, and a well-managed appointment system, patients experienced minimal waiting and optimal consultation times.	Diabetes	Personnel <ul style="list-style-type: none"> Trained medical staff (specialists, GPs or physicians) Other <ul style="list-style-type: none"> every centre must provide a direct 24-h emergency telephone number (“Hotline”)
Draznin et al ¹⁶	USA	Proposing a framework to guide advancement for clinical CoE	Other#	Diabetes Center of Excellence	Not reported	6 domains or pillars to serve as guiding principles	To improve population health, patient care experience (including quality and satisfaction) and reducing healthcare costs. Diagnosis and management of diabetes.	Diabetes	Personnel <ul style="list-style-type: none"> Adequate in terms of number, skills, experience Multi-disciplinary professional teams guided by clinician diabetologists experienced in managing complex, high-risk

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									<p>individuals</p> <p>Infrastructure</p> <ul style="list-style-type: none"> • appropriate to qualify as a centre and technologies
El-Eshmawi et al ¹⁷	USA	To define the structure of a mitral center of excellence and to review current clinical outcomes	Other [#]	Mitral Valve Center of Excellence	Not Reported	Description of functioning of self-nominated Centre of Excellence	Provides a structure for a multidisciplinary heart team to provide state of the art care for patients with degenerative mitral valve disease	Mitral valve disease	<p>Personnel</p> <ul style="list-style-type: none"> • Crucial - surgeons trained in mitral valve repair; anaesthesia team, intensive care team, interventional cardiologist <p>Infrastructure</p> <ul style="list-style-type: none"> • Mitral valve clinic; access to advanced cardiac imaging; data monitoring team
Elrod and Fortenberry ¹⁸	USA	To guide healthcare establishments to replicate noted processes to realize their own CoE	Other [#]	Willis-Knighton Health System CoE (has 11 CoE in different clinical areas)	1980's	Based on information and insights gleaned from 1 healthcare provider's (Willis-Knighton Health System) experience assembling and operating Centers of Excellence.	To deliver innovative, high-quality healthcare that would attract increasing number of patents	11 clinical areas by this healthcare provider	<p>Personnel</p> <ul style="list-style-type: none"> • Skilled and experienced personnel <p>Infrastructure</p> <ul style="list-style-type: none"> • Appropriate accommodation necessary to deliver continuum of care
Ferguson and Froehlich ¹⁹	USA	Describe the development of the program, its guiding principles, challenges and early results	Case report [^]	The Total Joint Centre	2010	Not reported. Intuitive quality improvement process with assistance from external consultant	To provide state-of-the-art, high quality, patient-centric, efficient healthcare	Joint replacements	<p>Personnel</p> <ul style="list-style-type: none"> • Multi-disciplinary team • Patient navigators employed
Frara et al ²⁰	Authorship team from Spain	Not reported. Discussion paper	Case report [^]	Pituitary tumors centers of excellence	Not reported	Adapted from Elrod and Fortenberry	To provide a high-level care for pituitary patients, to advance pituitary science.	Pituitary tumors	<p>Personnel</p> <ul style="list-style-type: none"> • Specialist medical staffing and nursing <p>Infrastructure</p> <ul style="list-style-type: none"> • Physical place availability

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Geetha et al ²¹	USA	Apply the definition of clinical excellence to nephrology	Other [#]	Miller-Coulson Academy of Clinical Excellence	2015	Adapted clinical excellence framework from Christmas	Not reported	Nephrology	Not reported
Haider et al ²²	LMIC	<ul style="list-style-type: none"> To explore the role of international urologic organisations in developing CoE in patient care, training and dissemination of knowledge. To explore strategies used to improve the standard of care and outcomes of urologic conditions in LMIC. To provide a roadmap on how similar international surgical organizations can contribute to developing CoE in LMIC through health system strengthening. 	Case report [^]	Not reported	Not reported	Used Elrod and Fortenberry	To contribute to health system strengthening through international partnerships	Urology Surgery	Personnel <ul style="list-style-type: none"> Staff with depth and breadth of knowledge and qualifications
King, Jamieson and Berg ²³	USA	To use the example of transplant programs (with extensive national-level data) as examples of the strategic planning required to accomplish comprehensive. Interdisciplinary care affording the best possible outcomes, and rightfully claim to serve as centres of Excellence.	Other [#]	Presents 9 Centres of Excellence designations within solid-organ transplantation	Not reported	Elrod and Fortenberry	Providing best outcomes possible to people undergoing organ transplantation	Hepatology	Not reported
Kullar et al ²⁴	USA	<ul style="list-style-type: none"> To describe the process and purpose of designating institutions as Antimicrobial Stewardship Centres of Excellence CoEs. To provide awareness to clinicians on opportunities 	Research article [*]	Antimicrobial Stewardship Centres of Excellence (program)	2017	Built on core elements of Centers for Disease Control and Prevention. Added aspects of meaningful	Effectively implement of antimicrobial stewardship programs	Infectious Disease	Personnel <ul style="list-style-type: none"> Clinical expertise

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		available through Infectious Diseases Society of America with this CoE designation				differentiation by workgroup of infectious diseases physicians and pharmacists.			
Lancellotti, Dulgheru and Sakalihan ²⁵ & Chambers et al ²⁶	Multiple European countries	Chambers: to discuss Standards for mitral and aortic valve multidisciplinary team practice within a 'Heart Valve Center of Excellence'.	Other [#] & Research article*	Heart Valve Centre of Excellence	Not reported	Not reported	To perform durable mitral valve repair at close to zero risk in patients with asymptomatic severe mitral regurgitation caused by prolapse. The intention was that invasive valve interventions should not occur outside Heart Valve Centres of Excellence	Heart Valve Surgery	<p>Personnel</p> <ul style="list-style-type: none"> Multi-disciplinary team (medical and nursing) proficient in diagnosing and treating all cardiac valve syndromes and disorders <p>Infrastructure</p> <ul style="list-style-type: none"> Facilities to treat and refer patients for valvular surgery/intervention. Access to expert imaging
Li et al ²⁷	USA	To evaluate the current status of defining and using CoE designation	Research article*	Not reported	Not reported	Not reported	Not reported	Multiple area	Not reported
Marinoff and Heiberger ²⁸	China	To share accomplishments and limitations from creating a Centre of Excellence in Low Vision rehabilitation in China	Case report [^]	Center of Excellence in Low Vision and Vision Rehabilitation	2010	Not reported	Treatment of people with low vision	Low vision and vision rehabilitation	<p>Personnel</p> <ul style="list-style-type: none"> Trained doctors and nurses <p>Infrastructure</p> <ul style="list-style-type: none"> Occupies 6,240 square feet and is equipped with four low vision examination rooms, a special testing room, an assistive technology room, a dispensing area, and a classroom, access to multiple low vision devices
Martin et al ²⁹	Various countries	Utilize available literature to better characterize the features of a spine COE at a tertiary care center and determine the impact of CoEs on patient satisfaction and outcomes.	Systematic Review & Case report [^]	Spine CoE	2021	The COE's (Midwest academic tertiary care) mission entails three primary emphases: value, quality, and	Standardisation of protocols for the works up of suspected spinal cord compression across the regional hospital system to improve time to diagnosis, transport and intervention.	Spine	Not reported

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						accountability.			
McLaughlin et al ³⁰	USA	Review the literature supporting the establishment of pituitary CoEs, suggest criteria for COE recognition, consider the development of standards of care, and discuss potential pitfalls.	Other [#]	Pituitary Centre of excellence	NA	Not reported for pituitary tumour, however provided examples of other models e.g., bariatric	Treatment of pituitary tumour and described primary missions and criteria for verification	Pituitary	<p>Personnel</p> <ul style="list-style-type: none"> • Multi-disciplinary approach related to pituitary tumours and hormonal disorders. • At least 1 neurosurgeon with transsphenoidal surgical experience • Training for team <p>Equipment</p> <ul style="list-style-type: none"> • Equipment and instrumentation for endonasal cranial base surgery including endoscopic equipment <p>Others</p> <ul style="list-style-type: none"> • Clinical pathways and standard operating procedures
Nakov et al ³¹	Bulgaria	Focus on the importance of performing the most appropriate testing strategies for ATTR amyloidosis and establishing a CoE for this rare disease. Highlights experience in establishing a CoE in Sofia, Bulgaria and define the fundamental steps needed to successfully launch a program.	Other [#]	CoE for ATTR amyloidosis	2016	Not reported	Treatment for Amyloidosis	Transthyretin Amyloidosis	<p>Personnel</p> <ul style="list-style-type: none"> • Dedicated team of experts specialized in the range of medical fields required to diagnose the patients effectively and education/training for staff
Piccini et al ³²	Not specifically identified	HRS hopes to accelerate this evolution by reviewing the rationale for AF CoEs, the available evidence for integrated and multidisciplinary care, and future challenges and opportunities. The document also defines the key priorities to be used as a guide for HRS	Other [#]	Atrial Fibrillation CoE	Not reported	Fundamentals of team-based integrated care models in atrial fibrillation	To improve outcomes by providing a better patient experience and delivering high-quality, guideline-recommended, state of the art care	Atrial Fibrillation	<p>Personnel</p> <ul style="list-style-type: none"> • Multi-disciplinary team <p>Infrastructure</p> <ul style="list-style-type: none"> • Dedicated lab with fluoroscopy • Electrophysiology recording system • Emergency equipment <p>Others</p> <ul style="list-style-type: none"> • Complication standard operating

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		and its diverse stakeholders to build consensus on defining the core components of an AF CoE.							procedure
Pronovost et al ³³	USA	Defines explicit criteria for provider-based CoEs and how to apply them within a healthcare organization	Case report [^]	General description of CoE	Not reported	Reported used a framework based on University Hospital, USA and listed the criteria used to establish CoE as a framework.	Have access to multi-D team and seek to improve patient experience and outcomes and reduce costs	NA	Not reported specifically. Used examples from other CoE
Safer Care Victoria ³⁴	Australia	Discuss approaches to engaging clinicians and consumers to improve the quality and safety of health care in Vitoria. Spells out the purpose, role and structure of the CoCE.	Website – grey literature	Safer Care Victoria Centres of Clinical Excellence	2021	Aligns with Safe Care Victoria Strategic Plan 2020-2023.	Contribute to the key strategic domains of leadership, partnership and planning, monitoring and improvement with the aim of improving healthcare across Victoria, so it is safe, more effective and person-centred.	Multiple setting	Not reported
Sandhu et al ³⁵	USA	To gain a better understanding from key stakeholder groups on current practices needs and potential barriers to implementing optimal integrated AF care.	Other [#]	Atrial Fibrillation CoE	2022	AF CoE task force provides recommendations on defining, developing, implementing and evaluating an AF CoE	To standardise the care of AF patients based on guideline directed care to achieve best outcomes.	Atrial Fibrillation	Personnel <ul style="list-style-type: none"> Identified the need for multi-disciplinary team
Santos-Moreno et al ³⁶⁻³⁸	South America	<ul style="list-style-type: none"> To define the minimum standard of care. To describe the history and current context of the CoE in comprehensive care in patients with RA with suggestions on how to create CoE in RA Proposed a systematic and progressive methodology that will help all the institutions to develop successful 	Research article* & Other [#]	Centre of Excellence in Rheumatoid Arthritis	Not stated	<p>Created own framework and integrated healthcare models and endorsed by REAL-PANLAR</p> <p>Based on 3 pillars - the volume of patients with a specific condition or entity - continuous</p>	The ultimate goal of the CoE is to define a model of comprehensive care that meets the needs of the region in order to improve the accessibility, quality, and timeliness of care, and access to appropriate diagnosis and treatment. This is to facilitate access to better quality treatment, achieve disease remission, improve their quality of life and reduce long-term disability risk to RA patients.	Rheumatoid Arthritis	<p>Three CoE Modes were presented and each model (standard CoE, Optimal CoE, Model CoE) had different requirements of staff, equipment and infrastructure</p> <p>Personnel (at minimum)</p> <ul style="list-style-type: none"> Multi-disciplinary team led by rheumatologist <p>Infrastructure</p> <ul style="list-style-type: none"> Access to radiology Access to pathology <p>Equipment</p>

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		models without faltering in the process				improvement - the quality of healthcare			<ul style="list-style-type: none"> Standardised tools
Sheha and Iyer ³⁹	USA	General description of CoE and applying general principles of healthcare CoE to spine surgery	Other [#]	Spine CoE	Multiple centres that was previously established was discussed in the study	Not reported	An opportunity to accurately evaluate the true value of outpatient spine surgery	Ambulatory spinal surgery	Personnel <ul style="list-style-type: none"> Multi-disciplinary team Education
Shikora, Delegge and Van Way III ⁴⁰	USA	Describes the creation, implementation, and benefits of the BSCoE (Bariatric Surgery COE) and the benefits of creating an NSCOE (Nutritional Support CoE). Description of the CoE in Bariatric Surgery and how this can be adapted to Nutritional Support. The report contains description of resources, how it was created the certification process and benefits of BSCoE	Case report [^]	Nutrition Support Center of Excellence	2003 - creation of the Surgical Review Corporation (SRC).	Consideration for adaption of BSCoE to NSCoE The SRC <ul style="list-style-type: none"> Formulate and establish guidelines and criteria for assessing bariatric surgical practices. Evaluate and investigate applicants to ensure that they met the established standards to become a BSCOE. Creating a national bariatric surgical database to collect, analyse, and disseminate 	Not reported	Nutritional Support	Specified BSCoE and how this can be adapted to NSCoE Personnel <ul style="list-style-type: none"> Surgeons specific criteria for BSCoE Infrastructure <ul style="list-style-type: none"> Specific to BSCoE Equipment <ul style="list-style-type: none"> Not specifically outlined

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						data collected from the BSCOE's			
Shommu et al ⁴¹	Canada	To develop a multi-disciplinary consensus of nutrition care priorities for implementation in an IBD nutrition CoE	Research article*	Inflammatory Bowel Disease Nutrition CoE	2019	Not reported	To provide excellent clinical care, conduct original research	Inflammatory Bowel Disease	Raised as a concern/barrier <ul style="list-style-type: none"> Lack of infrastructure Lack of staffing
Silver et al ⁴²	USA	To outline criteria for centers of excellence and suggested indications for referral in cases of suspected placenta accreta.	Other [#]	Accreta CoE	Not reported	Not reported	Optimal management of patients with placenta accreta	Placenta Accreta Intensive care unit	Personnel <ul style="list-style-type: none"> Multi-disciplinary team with specialised staff for placenta accreta Infrastructure <ul style="list-style-type: none"> Intensive Care unit and facilities
Steiner et al ⁴³	USA	To suggest criteria that the headache centres might be recognised as centres of excellence in the headache community. Set out recommendations for 10 suggested role and performance-defining standards.	Other [#]	Specialized headache centre	Not reported	Not reported	Providing specialist care to patients with primary or secondary headache disorders that are difficult to diagnose or treat, refractory or rare, or for other reasons require specialist intervention	Headache	Personnel <ul style="list-style-type: none"> Multi-disciplinary care
Tapela et al ⁴⁴	Rwanda	Report program level description of implementing Butaro Cancer CoE, its preliminary impact and challenges faced in order to share lessons and inform service delivery in similar setting	Research article*	Butaro Cancer CoE	2012	Not reported	To deliver accessible cancer services in a resource-constrained setting histology-based diagnosis, imaging, surgical, pall care and socioeconomic supports	Cancer	Provided by Rwanda Ministry of Health. Personnel <ul style="list-style-type: none"> Doctors and nurses received training Infrastructure <ul style="list-style-type: none"> To support surgical procedures and palliative care Equipment <ul style="list-style-type: none"> X-ray and ultrasounds imaging Others <ul style="list-style-type: none"> Treatment protocol Finance

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									<ul style="list-style-type: none"> Partnership with other services from USA
Thomas et al ⁴⁵	USA	Establishing Cardiometabolic CoE for secondary prevention in patients with T2D and CVD	Other [#]	Cardiometabolic Center of Excellence	2018	Not reported	To deliver patient-centred collaborative model of care focused on aggressive and comprehensive secondary cardiovascular risk reduction in patients with T2D and CVD	T2DM + CVD	Personnel <ul style="list-style-type: none"> Nurse navigator Cardiometabolic Center Advisory Committee Training
Vivian et al ⁴⁶	USA	To outline the framework for a Pancreas CoE	Research article*	Pancreas CoE	2013	Outlined framework using 3 developmental domains. <ul style="list-style-type: none"> Establishing the foundation Formalising the program Solidifying the CoE status 	To improve the care and outcomes of patients and families affected by pancreatic disease using a multidisciplinary team approach to deliver exceptional and compassionate care	Management of pancreatic disease	Personnel <ul style="list-style-type: none"> Management – leadership support Surgeons trained in robotic surgical approach Multi-disciplinary staff trained Specific – nurse navigator and dietician Infrastructure <ul style="list-style-type: none"> To establish and maintain robotic surgical approach Equipment <ul style="list-style-type: none"> Minimally invasive technology (robotic) Advanced endoscopic technology Clinical Information Systems - dashboards. Others <ul style="list-style-type: none"> Certification
Williams ⁴⁷	USA	To discuss the evolution of the concept of Centers of Excellence and the components of an HCM center	Book Chapter	Hypertrophic Cardiomyopathy Centre	1971 for the first 15 centers	Adapted model from National Cancer Institute	Network of referral centres established for adult and paediatric HCM patients' regional centres encourage consistency of treatment algorithms and outcomes access to world-class clinical care within driving distance, as well as collaborative research between institutions. Also a resource and offer second opinions for providers and patients.	Hypertrophic Cardiomyopathy	Personnel <ul style="list-style-type: none"> Multi-disciplinary team that includes specialists in adult and paediatric cardiology, electrophysiology, interventional cardiology, cardiac surgery and genetic counselling, all with particular expertise in treating the patient with HCM. Equipment

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									<ul style="list-style-type: none"> • Cardiac imaging (echocardiography and cardiac magnetic resonance imaging) • Electrophysiology
Wirth et al ⁴⁸	Europe (Barcelona)	To develop the concept of the European Prostate Cancer Centers of Excellence with the specific aim to identifying European Centers characterised by high-quality care, research and education	Research article*	European Prostate Cancer Centres of Excellence	Criteria agreed upon in 2019	Created by authors	To enable high-quality management of prostate cancer in the fields of clinics, research, and education	Prostate Cancer	Resources requirements are outlined in detail in the study and specific requirement Personnel <ul style="list-style-type: none"> • Core team, associated services and multi-disciplinary approach
Wu et al ⁴⁹	USA	To evaluate <ul style="list-style-type: none"> • Patient outcomes at nominated CoE • Whether the revamped designation criteria would result in improved patient outcomes. 	Research article*	Blue Distinction Plus Centres	2016	Value framework	Not reported	Inpatient spinal surgery	Not reported
Yao and Zhou ⁵⁰	China	To describe the impact of the introduction of a mentor-based CoE program	Research article*	Peritoneal Dialysis CoE	2003	Created using mentor-mentee system	To become a best demonstrated practice unit	Peritoneal dialysis	Personnel <ul style="list-style-type: none"> • Physicians from mentor sites Other <ul style="list-style-type: none"> • Standardized teaching materials to deliver lectures, lead PD case discussions and ward rounds, suggest key performance indicators, and initiate a continuous quality improvement program.

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°Other in peer reviewed journal

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