# The ACPIVR Framework for Physiotherapists working within Vestibular and Balance System Health Care

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THE ASSOCIATION OF CHARTERED PHYSIOTHERAPISTS INTERESTED IN VESTIBULAR REHABILITATION

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The ACPIVR acknowledge other providers can apply the framework to learning outcomes in the education of Vestibular and Balance System Health care in a way that would achieve the core capabilities, knowledge and skills outlined within the framework.

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## Abbreviation List

| | |
|---|---|
| ABC Scale | Activities-specific Balance Confidence Scale |
| ACPs | Advanced Clinical Practitioners |
| ACPIVR | Association of Chartered Physiotherapists Interested in Vestibular Rehabilitation |
| AHPs | Allied Health Professionals |
| BBQ | Barbeque Roll- repositioning manoeuvre |
| BESTest | The Balance Evaluation Systems Test |
| BP | Blood Pressure |
| BPPV | Benign Paroxysmal Positional Vertigo |
| CAD | Cervical Arterial Dissection |
| CANVAS | Cerebellar Ataxia, Neuropathy and Vestibular Areflexia Syndrome |
| CBT | Cognitive Behavioural Therapy |
| ConfBAL | Confidence of Balance scale |
| CRP | Canalith Repositioning Procedure |
| CSP | Chartered Society of Physiotherapy |
| CT | Computerised Tomography |
| CVA | Cerebrovascular Accident |
| DGI | Dynamic Gait Index |
| DVA | Dynamic Visual Acuity |
| DHI | Dizziness Handicap Inventory |
| ENT | Ears, Nose and Throat |
| FCP | First point of Contact Practitioner |
| GP | General Practitioner |
| HCPC | The Health and Care Professions Council |
| HEE | Health Education England |
| HEI | Higher Education Institute |
| HIT | Head Impulse Test |
| vHIT | Video Head Impulse Test |
| HINTS (+) | Head Impulse, Nystagmus, Test of Skew (+audiology test) |
| ICF | International Classification of Functioning, Disability and Health |
| IFOMPT | International Federation of Orthopaedic Manipulation Physical Therapists |
| IST | In Service Training |
| mCTSIB | Modified Clinical Test of Sensory Interaction in Balance |
| MDT | Multi-Disciplinary Team |
| MECC | Make Every Contact Count |
| MS | Multiple Sclerosis |
| MSK | Musculoskeletal |
| MRI | Magnetic Resonance Imaging |
| NICE | The National Institute for Health and Care Excellence |
| OT | Occupational Therapist |

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| | |
|---|---|
| PD | Parkinson's Disease |
| PKS | Platform of Knowledge and Skills |
| POTS | Postural Orthostatic Tachycardic Syndrome |
| PPPD | Persistent Postural-Perceptual Dizziness |
| STANDING | SponTAneous Nystagmus, Direction, head Impulse test, standiNG |
| TUAG | Timed Up And Go |
| TBI | Traumatic Brain Injury |
| TREND | Timing, Re-challenge, Experience reaction, Nature of reaction, De-challenge |
| UK | United Kingdom |
| VBS | Vestibular and Balance System |
| VEMPS | Vestibular Evoked Myogenic Potential: (c) Cervical (o) Ocular |
| VNG | Videonystagmography |
| VOMS | Visio-Ocular Motor Screening |
| VOR | Vestibular-Ocular Reflex |
| VR | Vestibular Rehabilitation |
| WHO | World Health Organisation |

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# Foreword

The ACPIVR is a professional network for physiotherapists with an interest in Vestibular Rehabilitation (VR). It is recognised by and is affiliated to, the CSP (Chartered Society of Physiotherapy). It is a self-governing body led by a committee of volunteers who all work in the field of physiotherapy and Vestibular Rehabilitation, either as clinicians, in education or research. Its membership focus is centred on supporting the practice of physiotherapists who treat patients with vestibular and balance related disorders and on promoting the delivery of high quality Vestibular and Balance Systems (VBS) Health care.

Physiotherapists are key members of the Multidisciplinary Team (MDT) and are well placed to meet increasing demands with novel workforce deployment. The statement of core capabilities offers clinicians, employers, commissioners and education providers clear guidance and definitions against which to assure and improve patient care and facilitates public assurance of the capabilities of those health practitioners involved in their care.

Many physiotherapists already provide a high level of patient care in this field and work in accordance with the capabilities outlined in this document. Health Education England's (HEE) introduction of First Contact Practitioners (FCP) in Musculoskeletal (MSK) Health (Health Education England, 2018) and Multi-professional Advanced Clinical Practitioner (ACP) roles (Health Education England, 2017) has highlighted the changing roles of Physiotherapists across multiple healthcare settings. These developing roles offer a unique opportunity for Vestibular and Balance System Physiotherapists to play a full part in the MDT in primary and secondary care and ensure dizziness and balance disorders are managed and treated appropriately throughout the patient pathway.

Outside the medical model for Ear Nose and Throat (ENT) registrars, development of skills and knowledge in VBS Health care are traditionally gained at a post graduate level driven by individuals with a special interest. It is not generally taught at undergraduate level and there is no recognised post graduate pathway in the UK to develop expertise. Public and professional confidence in care delivery can be secured by identifying the capabilities, knowledge and skills required and gives regulators, higher education, practitioners, commissioners and service providers direction in the management of Vestibular and Balance Systems healthcare. By providing guidance and clarity on the capabilities required we hope the framework will encourage training and development to increase the number of physiotherapists utilising Vestibular and Balance System (VBS) knowledge, skills and attributes (KSA) across specialisms. Creating a new workforce is not the intention of the framework. Focus is on recognising existing capabilities and promoting acquisition of additional knowledge, understanding, skills and attributes to cultivate skilled professionals and develop pathways with high-quality, effective service delivery. This framework is intended to support health service transformation, shared decision making, social prescribing and to promote prevention and active self-management of longer-term conditions to enable people to remain independent and functional. Typical conditions treated include peripheral and central vestibular disorders such as Benign Paroxysmal Positional Vertigo (BPPV), concussion (mild brain injury), vestibular migraine, cerebellar pathologies and processes that cross the lifespan. By defining a clear path to improving vestibular and balance expertise and also care across the lifespan there is potential to improve and health care costs may decrease as people improve their quality of life.

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# Introduction and background

Dizziness and balance system dysfunction symptoms have a lifetime prevalence of 1 in 4 adults under 65 years (Yardley et al., 1998). Population based studies have reported an adult lifetime prevalence of 7.4% for vestibular vertigo, with 4.9% and 1.4% 1-year prevalence and incidence rates respectively (Neuhauser et al., 2005, Neuhauser, 2016, Bosner et al 2018). Prevalence of balance dysfunction in adults over the age of 40 has been reported at levels of 30-35% (Agrawal et al., 2009, Strupp et al, 2020) with increasing incidence associated with age, presence of co-morbidities such as diabetes and nearly a three-fold preponderance associated with being female (Neuhauser et al., 2005; Neuhauser et al., 2007). Balance dysfunction and clinically reported dizziness have been associated with a 2.6 and 12-fold increase in the odds of falling respectively (Agrawal et al., 2009) and a significant increase in risk of fractures (Kruschinski et al., 2010).

The burden of dizziness and balance dysfunction is significant socioeconomically and in human terms with negative impacts on patient's physical health, mental health, work capacity and quality of life (Agrawal et al., 2013; Bronstein et al., 2010; Kovacs et al., 2019; Neuhauser et al., 2005; Probst et al., 2017). A recent systematic review suggests Vestibular Rehabilitation (VR) via direct delivery in primary care and booklet-based delivery is cost effective (Kundakci et al., 2018) and has implications for all professions and grades, including GPs, Medics, Nurses, Physiotherapists, First Contact Practitioners and Advanced Practitioners etc. in primary and secondary care settings. A GP practice is the most common first point of contact for most people experiencing dizziness and imbalance (Bosner et al, 2018) however over the age of 85 less than 25% receive treatment (Collerton et al., 2012).

Development of referral pathways facilitates improved mobility and participation of older people with vertigo, dizziness and balance disorders (Regauer et al., 2020). The North West London dizziness referral pathway recommends Benign Paroxysmal Positional Vertigo (BPPV), orthostatic blood pressure and vestibular migraine can be initially managed in primary care as recommended by NICE guideline 127 (NHS North West London Collaboration of Clinical Commissioning Groups, 2019; NICE Guideline 127, 2019). VBS Health care is a 'golden thread' running through most specialities including Neurology, Care of Older People, Musculoskeletal, Cardiorespiratory, Accident and Emergency, Trauma and Orthopaedics etc. Clinical practitioners in primary and secondary care benefit from VBS Knowledge, skills and attributes and have potential to improve care across all specialities. This includes more robust recognition, assessment and management of patients presenting with dizziness and imbalance across the lifespan and speciality of care. For example, falls and frailty clinics routinely assessing for BPPV has potential to positively impact patient pathways, patient experience, falls and fracture rates and the overall healthcare economy.

There is also growing evidence supporting the important roles of physiotherapists within a variety of specialities at all levels including Advanced and Consultant Physiotherapists within secondary care in ENT, leading Balance Clinics and providing Vestibular and Balance System Health care (Leong et al., 2011, Kasbekar et al., 2014, Burrows et al., 2017).

Symptoms of dizziness and imbalance have many causes including:

- Central e.g. concussion (mild traumatic brain injury), stroke, multiple sclerosis, traumatic brain injury, vestibular migraine, aging, Parkinson disease etc.
- Peripheral Sensory e.g. vestibular - BPPV, vestibulopathy, Meniere's Disease; Visual e.g. cataracts; Somatosensory – e.g. peripheral neuropathy, hearing loss which relate to deficits in postural control etc.
- Cardio-vascular disease e.g. Cardiac failure, arrhythmias;
- Medication related e.g. medication induced postural hypotension, chemotherapy drugs or ototoxicity etc.
- Age related changes where vestibular, somatosensory, visual and sensory deficits combine to disrupt postural control.

This list is not exhaustive but does highlight the depth and breadth of knowledge required by health care practitioners involved in the care of patients with dizziness and imbalance.

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A core capabilities framework is recommended to support improvements in patient pathways where physiotherapists with appropriate knowledge, understanding and skills can provide safe and timely patient centred assessment, accurate diagnosis, appropriate treatment and self-management advice and, if necessary, instigate appropriate onward referral. It meets the needs of patients, professionals and service commissioners and in doing so may reduce the personal, social and economic healthcare burden of dizziness and imbalance, whilst improving patient outcomes. In addition, the framework is designed to decrease variations in care. With a systematic process of education and enhancement of knowledge, the results will be better informed care and optimized outcomes.

VBS Health care services are best served by a multidisciplinary team (MDT) and physiotherapists have a key role (Royal College of Physicians, 2008). The need for a more structured approach to the development of knowledge, understanding and skills for physiotherapists within VBS Health care has been highlighted both nationally and internationally by professionals, educators and service providers (Cohen et al., 2011; Male et al., 2019, Meldrum et al., 2020). Changes in the law and an evolving scope of practice for Allied Health Professionals (AHPs) in the UK have driven competency framework documents for Independent Prescribers (Royal Pharmaceutical Society 2016, 2020), Advanced Clinical Practitioners (ACPs) (Health Education England., 2017) and First Contact Practitioners (FCPs) (CSP., 2017; Health Education England, 2018). NICE guidelines on suspected neurological conditions, recognition and referral advise Benign Paroxysmal Positional Vertigo (BPPV) can be successfully identified and managed in primary care by any 'suitably qualified professional' and highlights red flags for investigation and onward referral (NICE Guidelines, 127 and 155).

The ACPIVR have developed a VBS Health care framework of core capabilities to provide support for continued professional development and service provision. It employs a common approach with the MSK core capability frameworks and has the potential to facilitate engagement between educators, service commissioners, service providers and physiotherapists to develop high quality local pathways of care for VBS Health care. It recognises the development of knowledge and skills throughout physiotherapy pre and post graduate training, the many ways in which professional development evolves over time and how such learning can be recognised.

Suitably skilled physiotherapists are well placed to fulfil the demands changing patterns of service delivery, contribute to and lead successful pathways of care and change health service culture. To date there has been no formal education pathway or process by which to achieve formal qualifications or to recognise the level of knowledge and skills required. VBS Health care has not been recognised in the International Federation of Orthopaedic Manipulative Physical Therapists (IFOMPT), MSK Core Capability Framework or HEE knowledge, skills and attributes publications to date. The ACPIVR Core Capability Framework addresses this and interconnects with existing frameworks for consistency.

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# Development of the framework

Development of the framework was initiated and driven by physiotherapists identifying a need for education pathways and formal recognition of knowledge and skills and is grounded in research and crowdsourcing (Male et al., 2019, Meldrum et al., 2020). In 2019 the ACPIVR committee formed an Education Sub Committee and had multiple meetings with the purpose of discussing the education requirements of ACPIVR members. Expert physiotherapy practitioners in the field of Vestibular and Balance Rehabilitation were invited to participate in the discussions, outlined below are some pertinent comments received.

*"There is very much a need for such a framework and to have a formalised approach for interested physios to be recognised in delivering high quality care in this subspecialty area. It will also promote further learning and education"*

*"It will be valued by all of us in Vestibular Rehabilitation"*

*"Management of dizzy patients will fall across many different specialisms: GPs, ENT, Audiology, Audio-vestibular medicine (separate to ENT and audiology!), Neurology, Cardiology, Care of Older Person, Psychology/ Psychiatric etc."*

*"Physiotherapists roles will be "central" in the patient's journey to a successful outcome in the management of a complex problem. Most of these patients do not need to be seen in a hospital and can be managed in the community"*

This process highlighted the need to promote education in different settings and to acknowledge the variety of ways in which people learn both in formal education (e.g. universities) and work-based practice. To support development of different education pathways it was deemed necessary to design a framework of core capabilities and identify the knowledge, skills and attributes that underpin good practice in VBS Health care.

Frameworks of core capabilities and competency are used in many areas including Non-Medical Prescribing, Advanced Clinical Practice, First Contact Practitioners, Frailty, Dementia, ENT Audio-Vestibular Medicine and Musculoskeletal Health. These frameworks have been developed through Delphi surveys, research projects and patient focus groups and have many common features. ACPIVR acknowledge the utilisation of the knowledge gained and have drawn heavily on the following frameworks to develop this document. IFOMPTs permission to use the domain concept was gained.

Chartered Society of Physiotherapy (2017), Draft First contact physiotherapy threshold capabilities

General Medical Council (2017), Generic Professional Capabilities Framework: http://www.gmc-uk.org/education/23581.asp

Health Education England (2017), Multi-professional framework for advanced clinical practice in England: https://www.hee.nhs.uk/sites/default/files/documents/HEE%20ACP%20Framework.pdf

Health Education England (2020), First Contact Practitioners and Advanced Practice Practitioners in Primary Care: A Roadmap to Advanced Practice: https://www.hee.nhs.uk/sites/default/files/documents/A%20Roadmap%20to%20Practice.pdf

International Federation of Orthopaedic Manipulative Physical Therapists (IFOMPT), (2016): Educational Standards In Orthopaedic Manipulative Therapy: http://www.ifompt.org/site/ifompt/IFOMPT%20 Standards%20Document%20definitive%202016.pdf

Joint Royal College of Physicians training board (2015), Speciality Curricular Training for Audio Vestibular Medicine: https://www.jrcptb.org.uk/sites/default/files/2015%20Audiovestibular%20medicine%20curriculum%20FINAL.pdf

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Public Health England (2016), Public Health Skills and Knowledge Framework 2016: https://www.gov.uk/government/publications/public-health-skills-and-knowledge-framework-phskf

Royal Pharmaceutical Society (2016), A Competency Framework for all Prescribers: https://www.rpharms.com/Portals/0/RPS%20document%20library/Open%20access/Professional%20standards/Prescribing%20competency%20framework/prescribing-competency-framework.pdf

Skills for Health, Health Education England and Skills for Care (2015), Dementia Core Skills Education & Training Framework: http://www.skillsforhealth.org.uk/services/item/176-dementia-core-skills-education- and-training-framework

Skills for Health, Health Education England and Skills for Health (2018), Musculoskeletal core capabilities framework for first point of contact practitioners. https://www.csp.org.uk/system/files/musculoskeletal_framework2.pdf

Skills for Health and Health Education England (2017), Person-Centred Approaches: http://www.skillsforhealth.org.uk/services/item/575-person-centred-approaches-cstf-download

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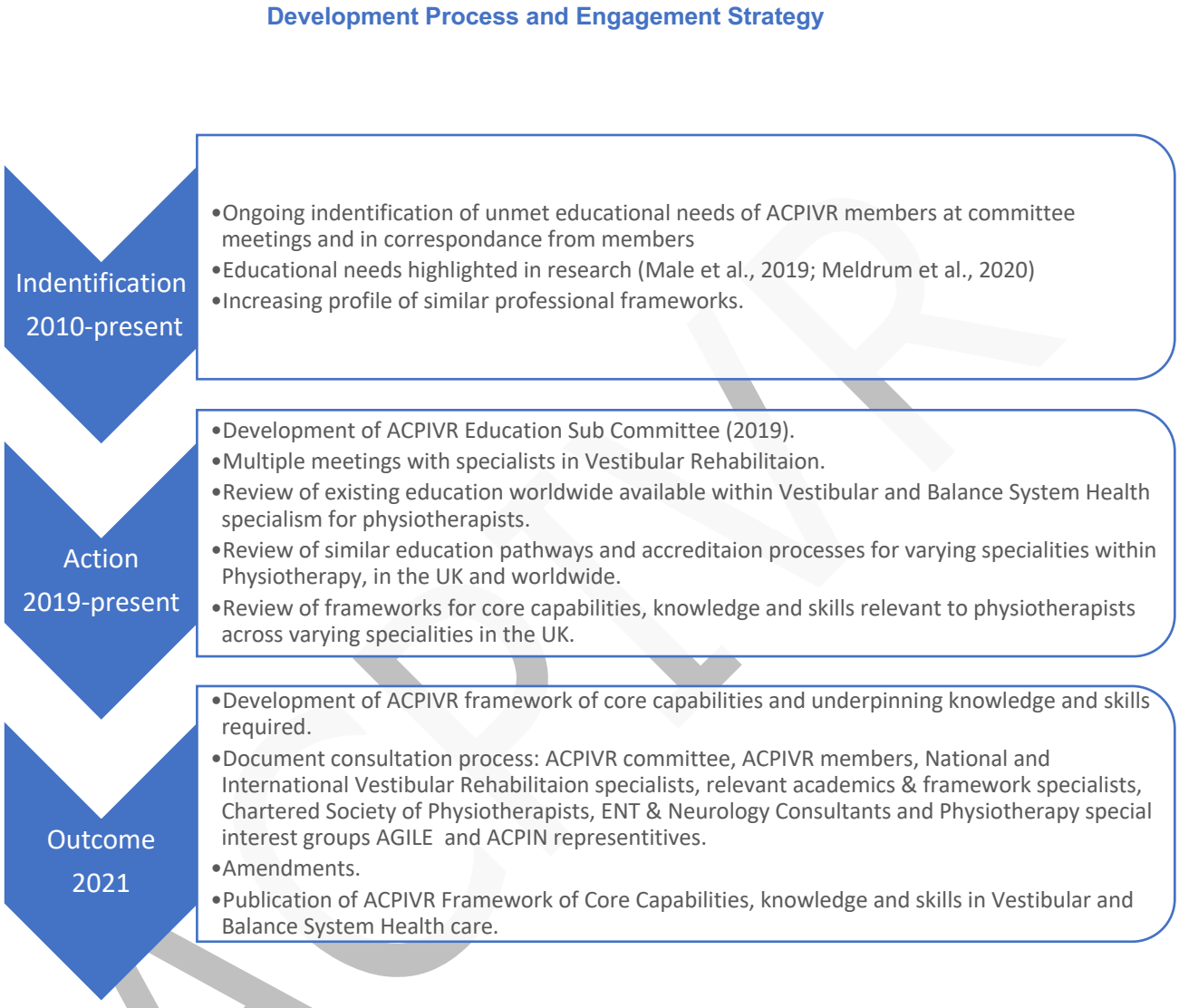
Figure 1: The framework development process timeline is outlined below.

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# Scope of the framework

This framework sets out the knowledge, understanding, skills and attributes required for post graduate Physiotherapists working in Vestibular and Balance System Health care. It provides evidence and support from multiple physiotherapy special interest groups in the UK (ACPIVR, ACPIN and AGILE) for change in the pre-registration curriculum and learning requirements which is reviewed and updated by the CSP. It links to various roles across Agenda for Change bands 5-8 including newly qualified physiotherapists, rotational posts and static posts working in VBS Health care. It can be applied equally to all services and environments e.g. acute, primary, secondary, tertiary, occupational health, private practice and community care settings etc. It is a platform of core capabilities designed to support on-going professional development and quality patient care.

In brief Physiotherapists will be able to apply generic principles of good practice to Vestibular and Balance System Health and:

- Perform an appropriate clinical assessment
- Formulate a working or final diagnosis within scope of practice
- Implement shared decision making; develop and agree a management plan
- Offer initial treatment and advice (including self-management and treatment if the pathway indicates)
- Progress treatments, review and evaluate interventions
- Discharge or make an onward referral, if required

Key points of the framework are:

- It is a framework that addresses VBS Health care KSA and can be applied across specialities within scope of practice
- It must be put in context to reflect different areas of practice and levels of expertise and applies equally across all areas
- It reflects core capabilities needed by all physiotherapists upon which appropriate professional development can be built

## What is outside the scope of this framework?

The scope of this framework relates to core capabilities and KSA required in VBS Health care. Many physiotherapists may already have additional knowledge and skills beyond these core domains. For example, the specialist knowledge and skills needed for those clinicians able to independently prescribe, to interpret imaging results or to undertake audio-vestibular testing are outside the scope of this framework.

Specialist knowledge and skills for those managing paediatric presentations are also beyond the scope of this framework.

## Who is this framework for?

The framework is for Physiotherapists (individuals and teams), service commissioners, service providers, higher education institutes and training providers within the field of Vestibular and Balance System Health care.

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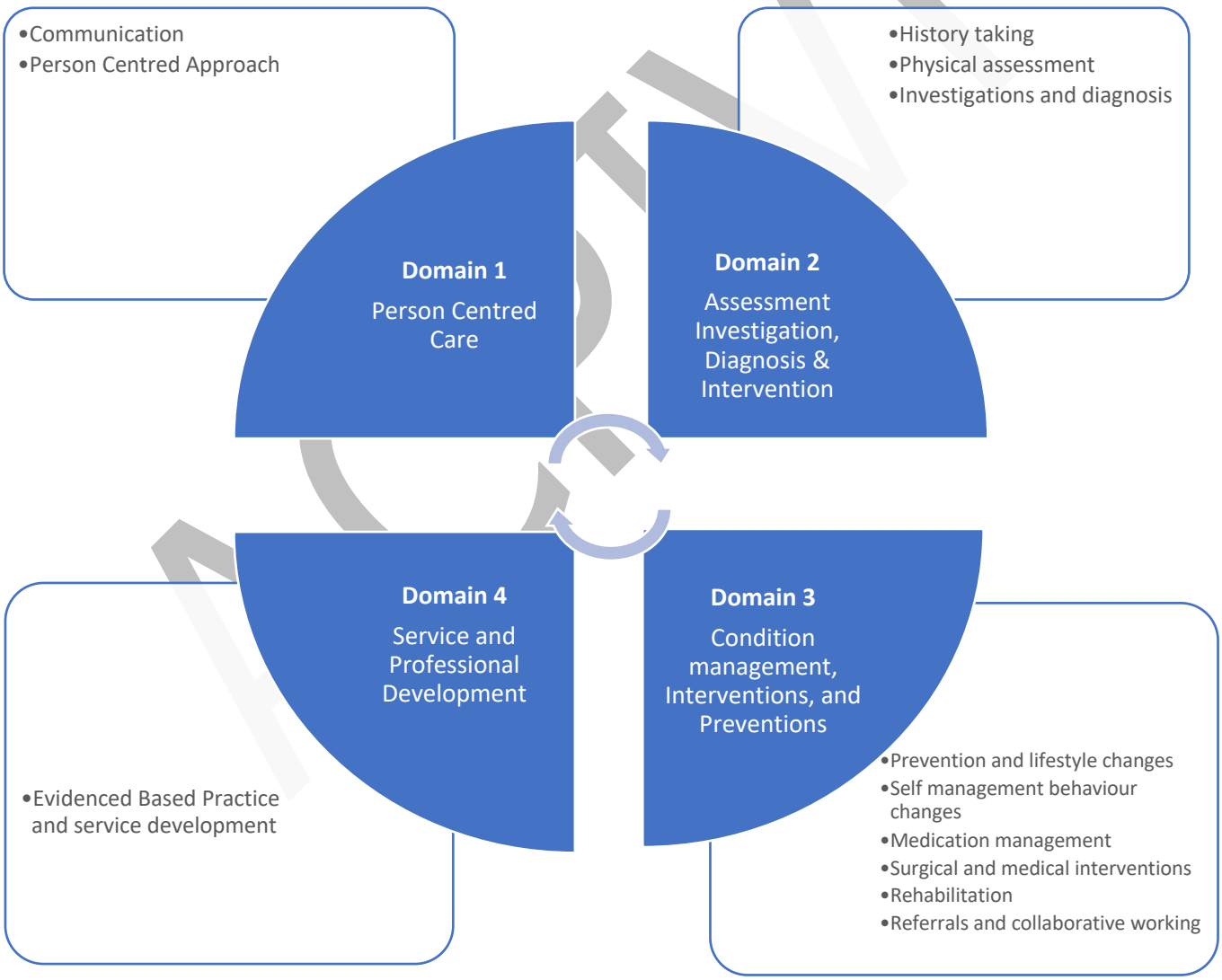
# Structure of the framework

The framework sets out what good Vestibular and Balance System Health care should look like. It uses 4 domains each containing the core capabilities physiotherapists should be able to demonstrate as they achieve the appropriate pre and post graduate knowledge, understanding, skills and attributes in this area. The four domains correlate with the capability framework for Advanced Clinical Practice and the capability framework for FCPs in MSK Health and link to the 4 pillars of advanced practice: Clinical (Domains 1, 2, 3 and 4); Education; Research; Leadership and Management (Domain 4)

(Health Education England, 2018).

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## Domain 1. Person Centred Care

A person-centred approach prioritises patients, carers, families and communities to be at the centre of health, care and well-being. It promotes a shared understanding between participants and encourages people to speak with health care practitioners about what is important to them. Communication is a key part of person-centred care and this approach promotes meaningful verbal and non-verbal communication which modifies care and advice to suit peoples' individual needs. Such tailored care, planning and support helps individuals to manage their own health and wellbeing and encourages shared decision making, whereby all reasonable options are outlined, and information is personalised, accessible and useful (Health Education England, 2017). Evidence based communication techniques are utilized during assessment and treatments to enhance management strategies e.g. Motivational Interviewing (Kiyoshi-teo et al, 2020), Behavioural Therapy (Lui et al, 2018), Acceptance Commitment Therapy (Kuwabara et al, 2020), Solution Focus Brief Therapy (Gan et al, 2020). Master clinicians utilize the principles in their communication to optimize functional recovery in persons with vestibular and balance disorders.

### Core Capability 1: Communication

### The physiotherapist will:

1.1 Use appropriate methods to ensure effective, compassionate and sensitive verbal, non-verbal, written and digital communication with patients, carers, managers and colleagues.
1.2 Adapt their communication approach according to individuals' communication needs, preferences and expectations in order to optimise engagement and understanding.
1.3 Gain informed consent for relevant assessment and management interventions.
1.4 Provide full, accurate and clear information to patients and carers about the nature of relevant conditions including the reasoning behind and potential risks, benefits and alternatives of treatment options including self-management strategies.
1.5 Convey and collaboratively discuss with individuals the relevance of VBS exercise, exercise prescription and self-administered treatment including social prescribing and lifestyle advice, signpost individuals appropriately and effectively to sources of information and support.
1.6 Consult effectively with colleagues to share knowledge and information appropriately, respecting confidentiality, in line with individuals' interests and needs.
1.7 Keep timely and accurate health care records of all aspects of consultations respecting local policies of confidentiality.

### Core Capability 2: Person Centred Approach

### The physiotherapist will:

2.1 Approach communications with patients, carers and colleagues openly, honestly and compassionately actively engaging in a collaborative process.
2.2 Demonstrate sensitivity to an individual's background, culture, beliefs, values and experiences and how dizziness and balance dysfunction may impact on their quality of life, work and relationships, recognising the value individuals bring to manage their own care.
2.3 Engage in a shared decision-making process, support self-management, behaviour change, lifestyle change, patient activation, patient education and health coaching.
2.4 Facilitate individuals to make decisions about their care by helping them to: identify goals, explain all options available (including risks, benefits and alternatives) and supporting decision making for preferred management options.

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## Domain 2: Assessment and Investigations

Physiotherapists involved in the care of patients with dizziness and balance dysfunction will normally undertake clinical assessments to develop clinically reasoned differential diagnoses, synthesise potentially contradictory information and establish an effective management strategy, which may include the need to request or refer for appropriate investigations and tests. Effective skills in collaborative MDT working, critical thinking, problem-solving and analysis are key and should result in effective, safe, autonomous and reflective practice which is evidence informed and person-centred (Health Education England, 2017).

### Core Capability 3: History taking

### The physiotherapist will:

3.1 Gather accurate and reliable information from the patient through effective, efficient and sensitive interviewing, modify depth of questioning and employ targeted interviewing when assessing acute and chronic vertigo or imbalance being guided by explicit and implicit cues.
3.2 Assess the impact of the condition on quality of life, functional ability, physical and psychosocial well-being.
3.3 Gather information from a variety of sources and synthesise appropriately to inform the clinical reasoning process and enhance person-centred care, allowing people to tell their story.
3.4 Address the individual's ideas, expectations, concerns, values and beliefs regarding their condition to positively influence outcome.
3.5 Use appropriate screening tools and questionnaires to identify risks, physical assessment objectives and onward referrals; for example, Dizziness Handicap Inventory, Activities of Balance (ABC) scale, ConfBal, mini BESTest etc.
3.6 Critically assess quality of life influencing factors i.e. work, social, interests, activity levels, smoking etc and the impact of these for the individual and their presenting condition (World Health Organisation International Classification of Functioning, Disability and Health).
3.7 Critically appraise the information gained taking into consideration any peripheral and central red flags, indications of serious pathology, medication use/ misuse, severity, intensity and nature of symptoms.
3.8 Recognise complex or incomplete, ambiguous and conflicting information and identify aspects which should be explored further.
3.9 Maintain accurate and concise health care records in line with local and national protocols and legal and professional requirements.

### Core Capability 4: Physical assessment

### The physiotherapist will:

4.1 Gain relevant informed consent to physical examination respecting the patient's dignity, safety and comfort.
4.2 Adapt assessment parameters to meet the needs of different individuals and environments.
4.3 Perform functional and observational assessment relevant to formulate clinically reasoned differential diagnoses, primary diagnosis or identify a condition.
4.4 Select and perform appropriate assessment procedures to include but not limited to cranial nerve examination, visio-ocular motor screening/ VOMScreen, Head Impulse Testing (HIT), cervical spine function, upper and lower motor neurone assessment, co-ordination, balance, falls risk, gait, orthostatic blood pressure, Dynamic Visual Acuity (DVA), postural stability screening and positional tests for BPPV.
4.5 Plan and safely perform appropriate physical assessment procedures which are informed by understanding the application parameters of validity, reliability, specificity, sensitivity and the limitations of these parameters. This may include HINTS+ (Head Impulse Nystagmus test of Skew) or STANDING (SponTAneous Nystagmus Direction, head impulse test standing) in acute vestibular presentations and screening for postural control and falls risk.
4.6 Interpret, analyse and identify pertinent information from the VBS physical assessment.

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4.7 Understand benefits and limitations of telehealth consultations ensuring safety and awareness of limitations in physical examination techniques.
4.8 Maintain accurate and concise medical records in line with local and national protocols and legal and professional requirements.

## Core Capability 5: Investigations and diagnosis

### The physiotherapist will:

5.1 Recognise potential red flags, limits of scope of practice and when to refer onto another service/ specialist/ speciality if symptoms are atypical or non-responsive to treatment.
5.2 Recognise the diagnosis of VBS Health conditions commonly seen within scope of practice.
5.3 Demonstrate the ability to undertake and evaluate risk, including falls, mental health and serious pathology in a vestibular assessment and act on the findings appropriately.
5.4 Recognise when conditions can be managed at the point of contact or if early/ onward referral is required to optimise long term outcomes.
5.5 Recognise the potential for dizziness and imbalance to arise in at risk people e.g. abuse, frailty, cognitive impairment and where indicated take appropriate action.
5.6 Recognise the role, time sensitivity, benefits and risks of further investigations including imaging (MRI, CT, X-rays, blood tests etc.) and audio-vestibular function testing in each condition, its relevance to physiotherapeutic interventions and arrange if within scope of practice or seek appropriate onward referral in acute and chronic vertigo presentations e.g. to Neurology, ENT, Care of the Older Person etc..
5.7 Understand and where appropriate interpret relevant vestibular function tests and use to inform and develop the rehabilitation needs of patients.

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## Domain 3: Condition Management, Interventions and Prevention

Physiotherapists involved in the care of patients with dizziness and balance dysfunction will need to be able to formulate, advise on and instigate a person-centred management plan, even if some of these options involve onward referral or are out of their scope of practice. Management plans should involve shared decision making and support individuals to reduce impact, risk and self-manage their condition where appropriate, making behaviour changes if relevant to maximise the health and well-being of the individual and the wider community (Health Education England, 2017).

### Core Capability 6: Prevention and lifestyle

### The physiotherapist will:

6.1 Consider and assess the social, economic and environmental factors which affect individuals, carers and the wider community and understand the impact of these factors on outcome.
6.2 Make Every Contact Count (MECC): Provide screening and intervention where appropriate and advise on health, bone health, diet, smoking, exercise, mental health, condition management and healthy relationships.
6.3 Promote independence, safety and awareness reducing falls risk and nurturing safe environments.
6.4 Advise on work related issues and signpost relevant agencies to help prevent work loss and improve work related function.
6.5 Facilitate behaviour change through shared decision making, motivational interviewing and Cognitive Behavioural Therapy (CBT) and identify changes that can have a positive impact on health and wellbeing using evidenced based methods.
6.6 Work collaboratively across all sectors, signpost and socially prescribe to improve outcomes and reduce health inequalities.

### Core Capability 7: Self-Management and behaviour change

### The physiotherapist will:

7.1 Promote and support adherence to management plans using good communication skills to achieve patients goals e.g. using motivational interviewing, behaviour change theory, and patient activation to achieve to goals.
7.2 Explore the impact and long-term implications of actions and inactions on agreed goals, mental, physical, emotional and social wellbeing with individuals.
7.3 Promote exercise and movement as a life-long management strategy for general health and wellbeing.
7.4 Ensure management strategies address personalised ideas, concerns, expectations and goals appropriately.
7.5 Recognise the impact of co-morbidities, as well as physical and mental health issues on management plans, conditions and wellbeing.
7.6 Signpost or refer onto counselling, clinical psychology, psychological therapies and psychiatry where appropriate.
7.7 Signpost to other sources of information, including local and national guidance for self-help information and help.
7.8 Share knowledge on ways to address work stability and retention to individual circumstances.

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## Core Capability 8: Medication management

### The physiotherapist will:

8.1 Understand the role and use of common medications use in VBS Health care.
8.2 Understand the relevance and interference of medication to examination and treatment e.g. vestibular suppressants, blood pressure medication etc.
8.3 Signpost to other sources of information where appropriate, e.g. pharmacists, GP, websites, leaflets.
8.4 Gather information on current medications, drug allergies, adverse reactions, use and misuse as part of a comprehensive approach to patient care.
8.5 Identify potential medication side effects or overuse and manage or refer on appropriately.
8.6 Work within legal prescribing frameworks and individual scope of practice e.g. independent prescribing.

## Core Capability 9: Surgical and medical interventions

### The physiotherapist will:

9.1 Understand the role of common surgical interventions in Vestibular and Balance System Health management and access further opinion or refer to appropriate services if necessary.
9.2 Address beliefs and expectations around surgical or medical interventions for Vestibular and Balance System Health in the context of appropriate individual care, risk, benefits, alternatives and possible outcomes.

## Core Capability 10: Rehabilitation, exercise therapy, interventions, evaluation and care plans

### The physiotherapist will:

10.1 Demonstrate an advanced knowledge, application and adaptation of therapeutic vestibular rehabilitation exercise prescription to include gait re-education, VOR1 and VOR2, visual and vestibular-motion desensitization, strength, postural control and balance training, cervical proprioception, falls management etc, and justify its use in treatment of patients with multifactorial dysfunction of balance and dizziness.
10.2 Gain consent for appropriate rehabilitation techniques and implement safely e.g. BPPV assessment and treatment techniques.
10.3 Prescribe personal rehabilitation exercise programmes designed to promote improvement in symptoms, quality of life and functional abilities and understand some individuals may need additional support e.g. OT, carers, digital solutions.
10.4 Integrate digital solutions where appropriate e.g. apps, wearables, virtual reality.
10.5 Ensure safety in all activities whilst encouraging exploration of ability boundaries and responsibility for own rehabilitation.
10.6 Advise on other rehabilitation interventions including social prescribing e.g. referring individuals to a range of local non-clinical services such as community- based exercise programmes where appropriate.
10.7 Use a shared decision-making process addressing individuals' goals, aims, expectations, ideas, concerns, availability of service and condition guidelines considering all options.
10.8 Implement appropriate management, treatment, evaluation and onward referral strategies.
10.9 Advise, manage, or seek help with pharmalogical and non pharmalogical aspects of VBS Health care working within professional, knowledge and skill boundaries.

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10.10 Evaluate psychological factors and impact on mental health associated with symptoms and refer to appropriate services.
10.11 Identify, through use of appropriate outcome measures the effect of interventions and discharge with appropriate advice. Or refer onwards if non-responsive or requires specialist intervention.

## Core Capability 11: Referrals and collaborative working

## The physiotherapist will:

11.1 Work within scope of practice, professional core values and access support for individual and self where need identified.
11.2 Nurture and engage in MDT activity, use relevant documentation/communication tools to liaise and integrate management plans.
11.3 Advise on social prescribing activities and non-clinical services aligning management and care plans.
11.4 Communicate and draw on expertise from the MDT, contributing and effectively participating in its activities in order to enhance learning and service delivery.
11.5 Instigate onward referrals utilising appropriate documentation/communication to other health and care services, where appropriate in an individual's best interests.

Physiotherapists involved in the care of patients with dizziness and balance dysfunction have an active role in supporting and developing services via conducting and contributing to ethical research and evidence informed practice which promotes stakeholder involvement. Practitioners evaluate the impact of their services on individuals and service outcome. Physiotherapists understand the integral importance of reflective practice, utilising multi sources, in order to facilitate life-long learning and service development (Health Education England, 2017).

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## Domain 4: Service and professional development

### Core Capability 12: Evidence Based Practice and Service Development

### The physiotherapist will:

12.1 Promote person centred care through use of local and national initiatives to improve outcome for individuals, carers and communities.
12.2 Evaluate and develop practice and associated outcomes through use of appropriate outcome measures and analysis of data collection, using this to inform healthcare delivery and service provision.
12.3 Critically apply national and international guidelines for best practice in delivery of VBS Health care outcomes and service provision, modifying where appropriate.
12.4 Demonstrate the ability to evaluate provision of the VBS System Health service delivery and effectively manage patients and service provision through governance frameworks, activities such as clinical audit, service evaluation, patient interviews, patient focus groups, research, publication, in-service training, participation in special interest groups locally, nationally and internationally, mentoring and working within and/ or contributing to regulatory frameworks.
12.5 Engage with reflective learning and undertake and record continued professional development and clinical mentoring, reflective learning, clinical supervision, clinical logs, learning, expert point of reference, patient and colleague feedback, observed clinical practice etc. outlined in the road map to advancing practice etc. to fulfil professional, regulatory and employment responsibilities.
12.6 Engage and act for positive change when the need for service improvements or cross pathway working are identified.

For further details on core communication and relationship building skills, see:

General Medical Council (2017), Generic Professional Capabilities Framework: http://www.gmc-uk.org/education/23581.asp

Person-Centred Approaches (Skills for Health and Health Education England 2017): (http://www.skillsforhealth.org.uk/news/latest-news/item/576-new-framework-to-promote- person-centred-approaches-in-healthcare).

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# Putting the framework into practice

Like other capability documents this framework gives examples of how clinicians could consider developing and illustrating learning related to the four domains, knowledge and skills. However, the framework does not specify how fulfilment of the capabilities should be assessed, rather this will depend upon the setting and context in which the framework is used and how clinicians individually develop their capabilities within this context. Appendix 1 and 2 can be used to guide discussion during Personal Development Reviews to map future learning needs and inform how Higher Education Institutes (HEI) can put the framework into practice. The practitioner can stop at whatever stage (1,2 or 3) appropriate to their scope of practice and service needs.

The Roadmap to Practice (Health Education England, 2020) highlights a pathway from novice to FCP and Advancing or Consultant practitioner via both Higher Education Institutions (HEI) or a portfolio route. The 'road map' provides guidance and documentation for developing a portfolio and routes to registration with the HEE Centre for Advancing Practice. This is currently a primary care MSK model however the road map principles and portfolio documentation can be applied to development of KSA that can be used in both primary and secondary care settings to enhance VBS Health care practice in any speciality.

**Table 1: Examples of learning strategies that can be used to develop and demonstrate fulfilment of the Vestibular and Balance System Health Care Framework**

| | |
|---|---|
| ✓ Portfolios of evidence<br>✓ Learning logs/blogs<br>✓ Reflective case analysis<br>✓ Mentored case based discussions and presentations<br>✓ Theoretical presentations<br>✓ Theoretical and/or practical tests of knowledge, understanding and skill<br>✓ Reflection on clinical mentorship<br>✓ Reflection on critical incidents<br>✓ Personal Development Plans<br>✓ Record of peer learning/ peer reviews<br>✓ Reflection on peer network learning<br>✓ Evidence of collaborative problem solving<br>✓ Evidence of work based practice | ✓ Record of audit or service evaluation<br>✓ Publications<br>✓ Evidence of effective communication with patients, carers and members of the MDT (within limits of confidentiality & anonymity)<br>✓ Transcripts of higher education institute courses/modules<br>✓ Critical evaluation and reflection on research, local and national guidelines, attendance of relevant courses, on-line resources, podcasts etc.<br>✓ Journal club reflection<br>✓ Observed examination procedure |

Developing knowledge, skills and attributes (KSA) in VBS Health care starts with a pre-registration learning and an introduction of VBS Health care through its application to Care of Older People, Neurology, and MSK care etc. Professional development continues through stages 1, 2 and 3 for newly qualified physiotherapists up to and beyond Advanced and Consultant Physiotherapist levels. HEIs can use the route to developing KSA to aid planning of content of content for level 6 and 7 pre and post registration course or deliver short courses, modules etc. Further information to support content delivery can also be found in appendix 1 and 2. ACPIVR will, if requested, support the development and delivery of content. The domains and learning outcomes can be used in a variety of ways by HEIs or clinicians wishing to demonstrate the acquisition and application of KSA in practice, for example, but not limited to, a structured portfolio, Objective Structured Clinical Examination (OSCE), written exams, online exams etc.

## Statement for Stages 1-3:

**At each stage a Physiotherapist is able to demonstrate and evidence core capabilities relating to knowledge, skills, attributes, clinical reasoning and safe practice in the recognition, assessment, treatment and management of Vestibular and Balance System Health care:**

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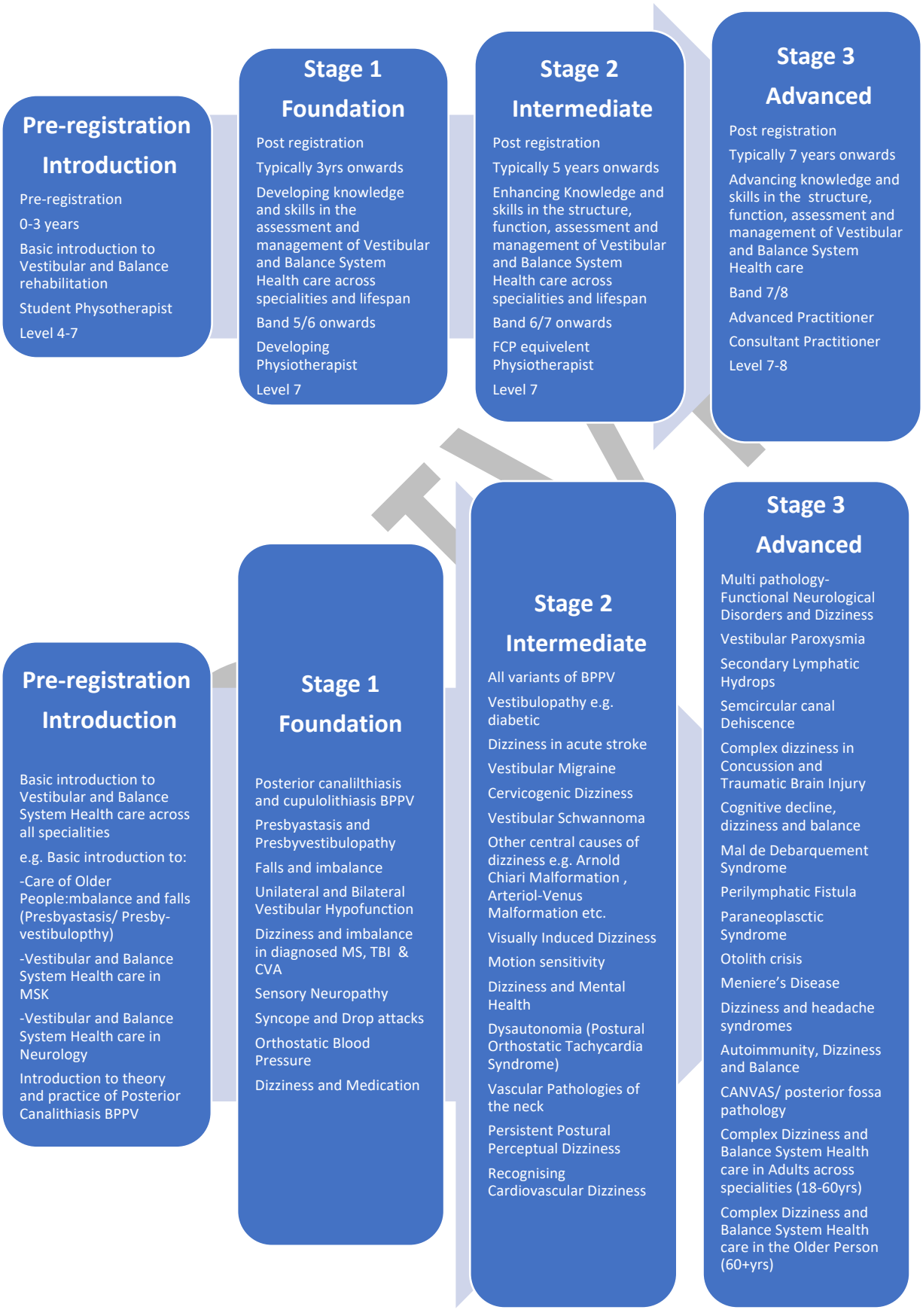
Figure 3: Route to developing knowledge, skills and attributes in Vestibular and Balance System Health care and condition management in relation to level of experience.



# Knowledge and Understanding, Skills and Attributes (KSA).

Knowledge, understanding, skills and attributes required for effective assessment, intervention and management of VBS Health care has been developed via consultation with experts and reviewers. It is documented in Appendix 1.

Primarily the Learning Outcomes knowledge, understanding, skills and attributes (KSA) will be used for referencing learning. A summary matrix of the stages and conditions can be found in appendix 2 to support this linking to stage of development.

In brief Physiotherapists must:

- Demonstrate effective communication skills with the MDT and patient and their family/carers to ensure effective patient centred care.
- Demonstrate consultation and practical skills, enabling safe, accurate and effective assessment, diagnosis and management of patients with VBS health dysfunction.
- Demonstrate the ability to provide effective, clinically reasoned, person-centred management plans, tailored to individual needs and expectations, working within scope of practice.
- Demonstrate the ability to appropriately evaluate provision of Vestibular Rehabilitation Services and to effectively manage evidence-informed patients and service pathways.

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# Learning Outcomes:

## Linking the domains, core capabilities, knowledge and understanding, skills and attributes (KSA) and stage of professional development

The tables below illustrate the learning outcomes, KSA practitioners will be expected to know, understand and be able to demonstrate at each stage and fulfil core capabilities outlines previously. They illustrate theoretical, practical and clinical knowledge applied to VBS Health care. The development of the learning outcomes and tables is recognized as an evolving process and will be reviewed in two years and thereafter every five years in order to reflect contemporary practice.

The tables below reflect the domains and core capabilities of the ACPIVR Framework for Physiotherapists working in Vestibular and Balance System Health Care. In line with IFOMPT standards document, knowledge encompasses the theoretical and practical understanding, use of evidence, principles and procedures. Skills encompass the cognitive, psychomotor and social skills whilst attributes relate to the personal qualities, characteristics and behaviour in relation to the environment (IFOMPT, 2016).

The ACPIVR domains, core capabilities and KSA have been designed to be mapped against Health Education England and Higher Education Institutes knowledge, skills and attributes for level 7 learning outcomes (Quality Assurance Agency, 2014).

Table2: Quality Assurence Agency Masters Level 7 descriptors

| **Pre-registration & specialised study Level 6 bachelor's degrees typically:** | **Graduates with advanced study at Level 7 master's degree typically:** |
|---|---|
| • Demonstrate an extended and coherent knowledge and understanding of the discipline utilising specialised skills.<br>• Critical evaluate concepts and evidence from a range of sources.<br>• Demonstrate the ability to transfer and apply diagnostic skills and exercise significant judgement in a range of situations.<br>• Accept accountability for determining and achieving personal or group outcomes. | • Demonstrate an in-depth knowledge and understanding of the discipline, informed by current scholarship and research, including a critical awareness of current issues and developments in the subject.<br>• Demonstrate the ability to complete a research project in the subject, which may include a critical review of existing literature or other scholarly outputs.<br>• Use initiative and take responsibility,<br>• Solve problems in creative and innovative ways,<br>• Make decisions in challenging situations,<br>• Continue to learn independently and to develop professionally,<br>• Communicate effectively, with colleagues and a wider audience, in a variety of media. |

(Quality Assurance Agency (2014) MSc Level 7 descriptors)

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Table 3: Stage, Equivalent NHS banding and academic level of learning.

| | Equivalent NHS Banding | Academic level of learning |
|---|---|---|
| Pre-registration/ Introduction | Student Physiotherapist | Level 6 |
| Stage 1 | Band 5 onwards or equivalent | Level 7 |
| Stage 2 | Band 6/7 onwards or equivalent | Level 7 |
| Stage 3 | Band 7/8a onwards or equivalent | Level 7 |

Table 4: Learning Outcomes and Domains 1-4.

| **Domain 1 (D1): Person Centred Care**<br>ACPIVR Core capabilities 1 and 2<br>ACP Pillar: Clinical<br>**Learning Outcome: To demonstrate <u>effective</u> communication skills with the MDT, patient and their family/carers to ensure <u>effective</u> <u>patient centred</u> care.** | | **Cross Referenced ACPIVR Core Capabilities** | **Indicative ACP Pillar/s of Practice** | **What ACPIVR stage is this relevant to?** |
|---|---|---|---|---|
| **Knowledge and Understanding (KU):**<br>**The successful participant will demonstrate:** | | | | |
| D1.KU1 | Critical knowledge and application of effective communication methods and adaptations to ensure effective verbal, non-verbal, written and digital communication with patients, carers, managers and colleagues. | 1.1, 1.2, 7.1, 7.4, 7.8 | Clinical Practice | 1, 2, 3 |
| D1. KU2 | Critical understanding of the importance of gaining informed consent for assessment and treatment. | 1.3, 4.1, 7.1, 7.2 | Clinical Practice | 1, 2, 3 |
| D1. KU3 | Critical understanding of the importance of signposting individuals appropriately and effectively to sources of information and support. | 1.1, 7.7, 8.3 | Clinical Practice | 1, 2, 3 |
| D1. KU4 | Critical understanding of effective communication strategies with colleagues to share knowledge and information appropriately, respecting confidentiality, in line with individuals' interests and needs. | 1.1, 1.6, 1.7, 2.1, 2.2, 8.6 | Clinical Practice | 1, 2, 3 |
| D1. KU5 | Critical understanding of accurate and concise medical record keeping. | 1.7, 1.9, 8.4 | Clinical Practice | 1, 2, 3 |
| D1. KU6 | Critical and comprehensive knowledge of communication skills and application required for communication of complex information in challenging situations e.g. Motivational interviewing, Acceptance Commitment Therapy (ACT), Cognitive Behavioural Therapy (CBT), Solution Focus Brief Therapy etc. | 1.1,1.2, 1.8 | Clinical Practice<br><br>Leadership | 2, 3 |
| **Skills and Attributes (SA):**<br>**The successful participant will demonstrate** | | | | |
| D1. SA1 | Effective provision of accurate and clear information to patients and carers about the nature of their conditions including the rationale behind and potential risks, benefits and alternatives of treatment options including self-management strategies. | 1.1, 1.2, 1.4, 1.5, 2.1, 2.3, 2.4, 3.5, 8.2 | Clinical Practice | 1, 2, 3 |

| | | | | |
|---|---|---|---|---|
| D1. SA2 | Effective verbal and non-verbal communication skills to collaboratively explore with patients and carers the relevance of specific and general exercises, exercise prescription and self-administered treatment including social prescribing and diet and lifestyle advice. | 1.1, 1.5, 2.1, 2.3, 2.4, 3.4 | Clinical Practice | 1, 2, 3 |
| D1.SA3 | Effective communication, demonstrating compassion, empathy and sensitivity with patients and carers. | 1.1, 1.2, 3.1, 3.3, 1.8 | Clinical Practice | 1, 2, 3 |
| D1.SA4 | Keep timely, concise and accurate medical records of all aspects of consultations. | 1.9, 3.10, 4.8 | Clinical Practice | 1, 2, 3 |
| D1. SA5 | Application of knowledge and communication skills to facilitate shared decision making via a two-way process to agree goals and gain informed consent. | 1.1,1.2, 1.4,1.5, 2.1, 2.2, 2.3,2.4 | Clinical Practice | 1, 2, 3 |
| D1. SA6 | Respect confidentiality. | 1.3, 1.7 | Clinical Practice | 1, 2, 3 |
| D1. SA7 | Effective and comprehensive application of communication skills to enhance delivery of care and patient outcomes in complex situations e.g. Motivational Interviewing, Solution Focus Brief Therapy or Action Commitment Therapy (ACT) or Cognitive Behavioural Therapy (CBT) techniques | 2.3, 2.4 | Clinical Practice<br><br>Leadership and Management | 2, 3 |

**Examples of learning strategies that can be used to address learning outcomes:**

- ✓ Communication techniques practice
- ✓ Mentored practice
- ✓ Case analysis and reflection
- ✓ Attendance and reflection on formal and informal teaching/courses e.g. motivational Interviewing

**Examples of <u>assessment</u> strategies that can be used to assess learning outcomes:**

- ✓ Assessment of techniques through video analysis in portfolio
- ✓ Reflective case studies
- ✓ On-line exam
- ✓ Submission of portfolio of evidence

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| **Domain 2 (D2): Assessment, Investigation and Diagnosis**<br>ACPIVR Core capabilities 3, 4 and 5<br>ACP Pillar: Clinical<br>**Learning Outcome: Demonstrate consultation and practical skills, enabling safe, accurate and effective assessment, diagnosis and management of patients with vestibular and balance system health dysfunction.** | | **Cross Referenced ACPIVR Core Capabilities** | **Indicative ACP Pillar/s of Practice** | **What ACPIVR stage is this relevant to?** |
|---|---|---|---|---|
| **Knowledge and Understanding (KU):**<br>**The successful participant will demonstrate:** | | | | |
| D2. KU1 | Critical understanding of Patient Orientated Medical Records and structured Interviewing e.g. Solution Focus or Motivational Interviewing | 3.1, 3.2 | Clinical Practice | 1, 2, 3 |
| D2. KU2 | Comprehensive knowledge of anatomy and physiology of the central and peripheral Vestibular and Balance System applied to indications, use and contraindications/precautions for commonly used practical skills e.g. neuro-oculomotor examination including assessment for spontaneous and gaze holding nystagmus, smooth pursuit, saccades, HINTS+, VOR/ VOR cancellation, HIT and vergence testing, skew eye deviation, Dix-Hallpike test, side ly test, supine roll test, postural stability models and testing and falls etc. | 4.4, 4.5 | Clinical Practice | 1, 2, 3 |
| D2. KU3 | Comprehensive knowledge of anatomy and physiology of he central and peripheral Vestibular and Balance System applied to the critical clinical reasoning in the evaluation of clinical data obtained from practical skills examination related to presentations across the lifespan, e.g. correct interpretation of signs and symptoms from testing oculomotor function, positional tests, co-ordination tests, postural stability tests, vascular pathologies of the neck screening, blood pressure monitoring, cranial nerve examination, upper/lower motor neurone examination considering age and co-morbidities etc. | 4.4, 4.5, 4.6, 4.7. 5.7 | Clinical Practice | 1, 2, 3 |
| D2. KU4 | Critical understanding of therapeutic exercise prescription, e.g. Gaze stability/ VOR1/2 and modifications, habituation, substitution and adaptation exercises, gait re-education, strength and balance training | 6.1,10.1,10.3 ,10.4, 10.5, 10.8, 10.11, 10.12 | Clinical Practice | 1, 2, 3 |
| D2. KU5 | Critical understanding of the role of additional appropriate interventions and modalities, for example acupuncture, manual therapy, sensorimotor retraining, Tai Chi, balance and falls prevention programmes, CBT and solution focused therapy etc. to enhance rehabilitation of vestibular and balance function. | 5.3, 5.6, 6.2, 7.1, 9.1, 10.6 | Clinical Practice | 1, 2, 3 |
| D2. KU6 | Comprehensive knowledge to support recognition of and referral for appropriate management of: red flags; limit of scope of practice; when to investigate or refer onto another service/ specialist/ speciality if the symptoms are atypical or non-responsive to | 3.9, 5.1, 5.2, 5.3, 11.4, 11.5 | Clinical Practice | 1, 2, 3 |

| | | | | |
|---|---|---|---|---|
| | treatment e.g. Neuro-ophthalmology/ Neurology/ Audiology referral etc. | | | |
| D2. KU7 | Comprehensive knowledge of medications and co-existing medical conditions which may affect the accurate assessment and treatment of the vestibular system related to specific conditions e.g. BP testing, hearing loss and vestibular hypofunction, neck pain on BPPV on positional tests. | 5.3, 5.5, 7.5, 8.1, 8.3, 8.4,8.5, 8.6, 8.7, 8.8, 10.9 | Clinical Practice | 1, 2, 3 |
| D2. KU8 | Critical understanding of the causes and implications of sudden loss of consciousness | 5.1, 5.2, 5.3, 5.4 | Clinical Practice | 2, 3 |
| D2. KU9 | Critical and comprehensive understanding of physical, psychological, emotional and social factors associated acute and chronic dizziness and imbalance. | 1.7, 2.2, 3.2, 3.6, 3.7, 3.8, 6.1, 6.2, 6.4, 6.5, 6.6, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 10.6, 10.7, 10.10 | Clinical Practice | 3 |
| **Skills and Attributes (SU):**<br>**The successful participant will demonstrate:** | | | | |
| D1. SA1 | Effective communication skills and ability to gather and accurately record in medical records: subjective history, patient information; objective assessment for dizziness and balance and interpret its significance. | 1.1,1.2, 4.2, 4.7, 4.8 | Clinical Practice | 1, 2, 3 |
| D2. SA2 | Safe, accurate and effective handling and use of assessment procedures for neuro-oculomotor function e.g. spontaneous and gaze holding nystagmus, smooth pursuit, saccades, VOR / VOR cancellation, test of skew, HINTS+, HIT and vergence testing, static and dynamic visual acuity, cervical spine function/ proprioception. | 4.2, 4.3, 4.4, 4.5,10.2 | Clinical Practice | 1, 2, 3 |
| D2. SA3 | Safe, accurate and effective handling in the use of assessment procedures for positional vertigo e.g. Dix-Hallpike test, side ly test, supine roll test, bow and lean and test modifications. | 4.2, 4.3, 4.4, 10.2 | Clinical Practice | 1, 2, 3 |
| D2. SA4 | Safe, accurate and effective assessment of co-ordination, gait, falls risk, anxiety/ depression, visio-vestibular-cervical and somatosensory function and balance function. | 4.2, 4.3, 4.4 10.2 | Clinical Practice | 1, 2, 3 |
| D2. SA5 | Safe, accurate and effective handling in the application of any special tests for the safe practice of vestibular and balance rehabilitation, for example, blood pressure monitoring, cranial nerve examination, upper/lower motor limb dysfunction, postural control. | 4.2, 4.3, 10.2 | Clinical Practice | 1, 2, 3 |
| D2. SA6 | Safe, accurate and effective handling in the performance of canal repositioning techniques and treatment modifications. | 4.2, 4.3, 10.2 | Clinical Practice | 1, 2, 3 |
| D2. SA7 | Safe, accurate and effective application of therapeutic vestibular/ balance rehabilitation exercise prescription to include gait re-education, visual and vestibular-motion desensitization, habituation, substitution and adaptation, strength and balance training, postural stability, cervical proprioception etc. and its use in treatment of patients with | 7.3, 7.5 10.1, 10.7, 10.8, 11.3 | Clinical Practice | 1, 2, 3 |

| | | | | |
|---|---|---|---|---|
| | multifactorial dysfunction of balance and dizziness. | | | |
| D2. SA8 | Effective use of interpersonal and communication skills in the application of practical skills. | 1.1,1.2, 4.2, 4.7, 4.8, 9.2 | Clinical Practice | 1, 2, 3 |
| D2. SA9 | Effective application of knowledge to identify red flags, when to investigate further (imaging, bloods, Audiological and Vestibular Function Tests etc.) and limit to scope of practice. | 9.2, 11.5 | Clinical Practice | 1, 2, 3 |
| D2. SA10 | Effective and safe application of knowledge of medication management within scope of practice for Vestibular and Balance System Health working and asses for effects of medications on dizziness and balance e.g. Orthostatic BP, ototoxicity, Start/ Stop analysis or requesting medication review where indicated. | 3.8, 5.2, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 10.9 | Clinical Practice | 1, 2, 3 |
| D2. SA11 | Demonstrate skills required to manage acute attacks of dizziness and imbalance with long-term management strategies. | 5.4,5.3, 5.7, 6.3, 6.6, 10.8, 10.9 | Clinical Practice | 1, 2, 3 |
| D2. SA12 | Effective application of knowledge and critical understanding to recognise and assess psychological factors involved in the management of patients with dizziness and balance disorders and incorporate evidence-based interventions in management programmes. | 3.6, 3.7, 6.1, 6.5, 7.5, 7.6, 7.7, 7.8, 10.10, 10.12 | Clinical Practice | 1, 2, 3 |
| D2. SA13 | Effective communication and clinical reasoning skills to take a careful neurological and cardiology history, differentiate and refer on where necessary when considering drop attacks, syncope, orthostatic BP, POTS, vasovagal episodes, hyperventilation and pseudo seizures. | 3.4, 3.9, 9.1, 11.1, 11.2, 11.4, 11.5 | Clinical Practice | 1, 2, 3 |
| D2. SA14 | Effective recognition of unpredictable and uncontrollable dizziness and provide accurate driving information or refer onwards. | 5.7, 6.4, 7.7 | Clinical Practice | 2, 3 |
| D2. SA15 | Effective application of understanding to identify risk factors for Vestibular and Balance dysfunction including stage of life implications e.g. age-related imbalance/ falls; Menstrual/ Menopausal Vestibular Migraine; BPPV and Traumatic Brain Injury etc. | 4.3, 4.4, 5.2, 5.3, 5.5 | Clinical Practice | 3 |

**Examples of learning strategies that can be used to address learning outcomes:**

- ✓ Techniques practice
- ✓ Mentored practice
- ✓ Case analysis and reflection
- ✓ Attendance and reflection on formal and informal teaching/courses

**Examples of <u>assessment</u> strategies that can be used to assess learning outcomes:**

- ✓ Assessment of techniques through video analysis in portfolio
- ✓ Assessment of techniques via colleague/ mentor observation
- ✓ Reflective case studies
- ✓ On-line exam

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| **Domain 3: Condition management, interventions and prevention**<br>ACPIVR Core capabilities: 6, 7, 8, 9, 10 &11<br>ACP Pillar: Clinical<br>**Learning Outcome: Demonstrate the ability to provide effective, clinically reasoned, person-centred management plans, tailored to individual needs and expectations, working within scope of practice.** | | **Cross Referenced ACPIVR Core Capabilities** | **Indicative ACP Pillar/s of Practice** | **What ACPIVR stage is this relevant to?** |
|---|---|---|---|---|
| **Knowledge and Understanding (KU):**<br>**The successful participant will demonstrate:** | | | | |
| D3. KU1 | Critical understanding and addressing of concerns, ideas, expectations, shared decision-making for short-, and long-term goals, using behaviour change theory, patient activation, motivational interviewing and solution focused interventions to agree goals and interventions. | 6.5, 7.1, 7.2, 7.4, 10.7 | Clinical Practice | 1, 2, 3 |
| D3. KU2 | Critical understanding of the importance of promoting independence, lifelong management strategies, for overall health and well-being, safety and orientation reducing falls risk and nurturing safe environments e.g. person, social and work related | 6.3, 6.4, 7.2, 7.3, 7.6 | Clinical Practice | 1, 2, 3 |
| D3. KU3 | Comprehensive knowledge of good medication management principles working within scope of practise and understand impact of medication on Vestibular and Balance Systems, symptoms, condition, interventions, use of outcome measures etc. | 8.2, 8.6 | Clinical Practice | 2, 3 |
| D3. KU4 | Comprehensive knowledge of screening for MECC and signpost relevant professionals, self-help and agencies including psychological therapies and social prescribing. | 6.1, 6.2, 7.2, 7.7, 11.3 | Clinical Practice | 1, 2, 3 |
| D3. KU5 | Critical understanding of common medical and surgical interventions for Vestibular and Balance System health and benefits of addressing patient ideas, concerns and expectations of those interventions e.g. benefits of Epley over surgery for BPPV. | 9.1, 9.2 | Clinical Practice | 2, 3 |
| D3. KU6 | Critical understanding of the theoretical concepts of safe and effective Vestibular Rehabilitation Therapy, canal repositioning manoeuvres, how to personalise programmes and social prescribing. | 10.8 | Clinical Practice | 1, 2, 3 |
| D3. KU7 | Comprehensive knowledge and critical understanding related to designing and delivering personal rehabilitation exercise programmes designed to promote improvement in symptoms, quality of life and functional abilities (understanding some individuals may need additional support e.g. OT, carers, digital solutions). | 6.6, 10.8, 11.4 | Clinical Practice | 1, 2, 3 |
| D3. KU8 | Comprehensive knowledge of outcome measure validity, application and reliability in management of Vestibular and Balance System Health and identifying potential risks of | 10.8 | Clinical Practice | 2, 3 |

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| | falls, anxiety and depression etc e.g. mCTSIB, x5 sit to stand, DHI etc. | | | |
| **Skills and Attributes:**<br>**The successful participant will demonstrate:** | | | | |
| D3. SA1 | Effective communication skills to gain consent for and safely perform appropriate techniques for the treatment of BPPV and Vestibular and Balance System dysfunction e.g. Dix-Hallpike, Epley | 10.1, 10.2, 10.5 | Clinical Practice | 1, 2, 3 |
| D3. SA2 | Effective application of knowledge and communication skills to prescribe personal rehabilitation exercise programmes designed to promote improvement in symptoms, quality of life and functional abilities and understand some individuals may need additional support e.g. OT, carers, digital solutions. | 10.4, 11.1, 11.4, 11.5 | Clinical Practice | 1, 2, 3 |
| D3. SA3 | Effective skills in the application and adaptation of therapeutic vestibular and balance rehabilitation exercise prescription to include gait re-education, VOR1 and VOR2, visual and vestibular-motion desensitization, strength and balance training, cervical proprioception, reducing falls risk etc, and justify its use in treatment of patients with multifactorial dysfunction of balance and dizziness | 10.3, 11.1 | Clinical Practice | 1, 2, 3 |
| D3. SA4 | Application of knowledge to effectively utilise appropriate outcome measures to identify falls risk, when interventions are successful and discharge with appropriate advice. | 10.8, 10.11, 11.1 | Clinical Practice | 1, 2, 3 |
| D3. SA5 | Application of knowledge to effectively identify changes in quality of life, mental health and function using appropriate outcome measures and act accordingly. | 10.8, 10.10 | Clinical Practice | 1, 2, 3 |
| D3. SA6 | Effective application of knowledge to instigate onward referrals utilising appropriate documentation/ communication to other health and care services, where appropriate to an individual's best interests. | 10.6, 11.1 | Clinical Practice | 1, 2, 3 |
| D3. SA7 | Effective communication skills to nurture, draw on and engage in MDT activity, use relevant documentation/communication tools to liaise and integrate management plans and exercise therapy. | 11.1, 11.2, 11.4 | Clinical Practice | 1, 2, 3 |
| D3. SA8 | Effective reflective practice to advise, manage, or seek help with pharmalogical and non pharmalogical aspects of Vestibular and Balance System Health care working within professional, knowledge and skill boundaries. | 8.6, 10.9 | Clinical Practice | 2, 3 |
| D3. SA9 | Comprehensive skills in the application and adaptation of personalised therapeutic vestibular and balance rehabilitation exercise prescription | 10.1, 10.11 | Clinical Practice | 3 |

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**Examples of learning strategies that can be used to address learning outcomes:**

- ✓ Techniques practice
- ✓ Mentored practice
- ✓ Case analysis and reflection
- ✓ Presenting in-service training & department presentations
- ✓ Attendance and reflection on formal and informal teaching/courses

**Examples of <u>assessment</u> strategies that can be used to assess learning outcomes:**

- ✓ Assessment of techniques through video analysis in portfolio
- ✓ Assessment of techniques via colleague/ mentor observation
- ✓ Reflective case studies
- ✓ On-line exam
- ✓ Submission of portfolio

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| **Domain 4: Service and professional development**<br>ACPIVR Core capabilities 12 & 13<br>ACP Pillar: Clinical; Education; Research; Leadership and Management<br>**Learning Outcome: Demonstrate the ability to appropriately evaluate provision of Vestibular Rehabilitation Services and to effectively manage evidence informed patients and service pathways.** | | **Cross Referenced ACPIVR Core Capabilities** | **Indicative ACP Pillar/s of Practice** | **What ACPIVR stage is this relevant to?** |
|---|---|---|---|---|
| **Knowledge and Understanding:**<br>**The successful participant will demonstrate:** | | | | |
| D4. KU1 | Awareness of methods used for evaluating service delivery, participation in audit and continuing professional development | 12.1, 12.2, 12.5, 12.6 | Clinical Practice | 1, 2, 3 |
| D4. KU2 | Critical understanding of the importance of evaluating the provision of Vestibular and Balance System Health service delivery. | 12.2, 12.5 | Clinical Practice<br><br>Leadership & Management<br><br>Research<br><br>Education | 2, 3 |
| D4. KU3 | Comprehensive knowledge and application of methods of service evaluation. | 12.2, 12.4 | Clinical Practice<br><br>Leadership & Management<br><br>Research | 3 |
| D4. KU4 | Critical understanding of the importance of learning and reflective practice and provides continued professional development for self and others across the four pillars. | 12.2, 12.3, 12.4,12.5, 12.6 | Clinical Practice<br><br>Leadership & Management<br><br>Research<br><br>Education | 3 |
| **Skills and Attributes:**<br>**The successful participant will demonstrate:** | | | | |
| D4.SA1 | Effective engagement to act for positive change when the need for service improvements are identified. | 12.3, 12.4, 12.5, 12.6 | Clinical Practice | 1, 2, 3 |
| D4. SA2 | Effective reflective practice and undertake and record continued professional development and clinical mentoring, clinical supervision, clinical logs, learning etc. to fulfil professional, regulatory and employment responsibilities. | 12.4, 12.5, 12.6 | Clinical Practice | 1, 2, 3 |
| D4. SA3 | Contribute to the development of audit and service evaluation through the MDT meetings, case studies and in-service training | 12.3, 12.4 | Clinical Practice | 2, 3 |

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| | | | Leadership and Management | |
| D4. SA4 | Leadership in the effective management of patients and service provision for person and population care through clinical audit, service evaluation, research, publication, in-service training, participation in special interest groups, mentoring and working within regulatory frameworks locally, nationally and possibly internationally etc. | 12.1, 12.2, 12.3, 12.4, 12.5, 12.6 | Clinical Practice<br><br>Leadership & Management<br><br>Research<br><br>Education | 3 |

**Examples of learning strategies that can be used to address learning outcomes:**

- ✓ Participation in Audit
- ✓ Participation in research
- ✓ Participation in service evaluation
- ✓ Presentation/teaching of relevant IST, training
- ✓ Case analysis and reflection
- ✓ Attendance and reflection on formal and informal teaching/courses

**Examples of <u>assessment</u> strategies that can be used to assess learning outcomes:**

- ✓ Presentation/publication of audit/service evaluation or research.
- ✓ Reflective case studies
- ✓ On-line exam

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# Professional values and behaviours

To maintain the focus on core competencies and capabilities it is important to recognise Physiotherapists need to apply professionalism to all aspects of their practice in line with their own professional codes of conduct, standards and guidance.

This includes the importance of maintaining a person-centred approach when speaking to patients and carers, maintaining confidentiality, the need for continuing professional development and the importance of forming networks for support and learning.

As this is set out by the CSP we will not apply an exhaustive list here but applying professionalism may take the form of:

- Always introducing self and role to the patient
- Adapting the consultation to meet the differing needs of patients and carers
- Using the correct setting for the consultation taking account of confidentiality, consent, dignity and respect
- Recognising the wider impact that dizziness and imbalance (often persistent or recurrent) conditions can have on individuals, their families and those close to them.
- Taking responsibility for own learning and continued professional development
- Learning and improving own practise and making use of networks for support, reflection and learning.
- Recognising when safe systems are not in place to support clinical practise and act appropriately.

(CSP, 2019; HCPC, 2013, 2016)

# Equality, Diversity and Health Inequalities Statement

This document has been developed to give due regard to:

- Reducing inequalities in patient access to Vestibular and Balance System Health care services
- Eliminating discrimination, victimisation, harassment and bias and to advance equality of opportunity to all.

# Review process

The ACPIVR Education Sub Committee and an expert multi professional invitation panel will review and update the framework in 2 years and every 5 thereafter years. The relevance to practice, core capabilities, role of the clinician and functionality of the framework will be reconsidered in line with current best practice. It will include a consultation with multi-professional input into the update process including Professional Bodies, Educational Bodies and ACPIVR members and will be combined with outcomes of a patient focus group.

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**Appendix 1:** Knowledge and Skills support tool and indicative use to guide learning outcomes and professional development plans through stages 1-3 and beyond.

| Platform of Knowledge and Skills (PKS): | Indicative use: |
|---|---|
| The normal structure, anatomy and physiology and function of the Central and Peripheral Vestibular and Balance system and processes that can affect this. | • *Structure, anatomy, physiology and function of peripheral and central Vestibular and Balance system and processes affecting this.*<br>• *Structure and function of bone, joints, muscle and disease processes relevant to supporting the diagnosis and management Vestibular and Balance System Health*<br>• *The processes and pathology relating to Vestibular and Balance system conditions, including the ageing process, injury and disease states and repair of sensory balance organs and musculoskeletal factors that influence balance e.g. sensory, neurological, pain, weakness, chronic pain etc.*<br>• *The biological and psycho-social sciences applicable to Vestibular and Balance System problems* |
| The knowledge and skills of features of a Vestibular or Balance System problem that are relevant to testing, interpreting and making a diagnosis, including: | • *Dizziness and/ or imbalance: nature, type, severity, triggers and timing.*<br>• *Changes and variation of symptoms over time.*<br>• *History of any trauma or falls.*<br>• *Symptoms and tests which help distinguish central or peripheral dizziness and imbalance.*<br>• *Cranial Nerve exam including hearing and tinnitus screening and otoscopy.*<br>• *Visio-ocular motor screening (visual ocular motor assessment, specifically spontaneous and gaze holding nystagmus, smooth pursuit, saccades, functional VOR vergence testing, understand phorias and tropias, visual acuity)*<br>• *VOR cancellation Test*<br>• *Vibration Induced Nystagmus*<br>• *Head Impulse Test (HIT)/ vHIT*<br>• *Triage with HINTS+*<br>• *Triage with STANDING*<br>• *Co-ordination testing*<br>• *Gait and Balance testing*<br>• *Positional Tests for BPPV: Hallpike Dix, Side ly test, Supine Roll test, modifications, bow and lean, deep head hanging*<br>• *Cervical spine assessment*<br>• *Subjective Visual Vertical*<br>• *Pressure Tests e.g. Valsalva/ Tullio etc.*<br>• *Differential diagnosis of cardiovascular causes of dizziness e.g. orthostatic BP*<br>• *Decrease or loss of function or motion — weakness, restricted movement, deformity* |

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| | *and disability, ability to perform usual tasks or occupation.*<br>• *Altered sensations of dizziness and imbalance and functional dizziness.*<br>• *Dizziness or imbalance as a side effect of medication.*<br>• *Falls, falls risk and use of predictive outcome measures e.g. TUAG and Dual TUAG, x5 Sit to Stand, 4 Square Step test etc.* |
| How a Vestibular and Balance problem can impact on an individual and society including: | • *The biological and psycho-social sciences applicable to Vestibular and Balance system problems.*<br>• *The World Health Organisation (WHO) framework of International Classification of Functioning, Disability and Health (ICF).*<br>• *Obstacles to recovery or a return to usual activity or work including frailty, multimorbidity, dementia, learning disabilities or other determinants of health.* |
| The syndromes that Vestibular and Balance problems present as, their differential diagnoses and the characteristics of the different Vestibular and Balance conditions including systemic features and their expected progression / prognosis to support making a diagnosis and management.<br><br>The detail of knowledge should be in relation to their prevalence and seriousness.<br><br>Practitioners can demonstrate PKS and understanding irrespective of the speciality they work in. It is recognised practitioners will have a more in depth PKS in their specialist area. | *Commonly seen patterns and syndromes are identified specifically as key Knowledge and Skills in stages 1-3 as provided in the document. In addition, address presentations of:*<br><br>• *Acute Vertigo*<br>• *Chronic Vertigo*<br>• *Recurrent Vertigo/ disequilibrium*<br>• *Chronic imbalance*<br>• *Blackout/ Loss of consciousness and Drop attacks*<br>• *Falls in Older People and Presbyastasis*<br>• *Practical Procedures in Vestibular and Balance Rehabilitation e.g. BPPV*<br><br>*The cause of which can be related to:*<br><br>• *traumatic*<br>• *vascular / ischaemic*<br>• *neurological*<br>• *infectious*<br>• *degenerative*<br>• *immune mediated*<br>• *metabolic*<br>• *inherited / developmental / congenital*<br>• *neoplastic*<br>• *psychological*<br>• *age related*<br>• *Iatrogenic*<br><br>*Investigations:*<br><br>• *Appropriate investigative tests to aid diagnosis and assessment e.g. Blood tests, MRI, CT, X-rays and Vestibular Function* |

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| | *Tests where available e.g.Caloric Testing, cVEMPS, vHIT, Rotatory chair etc.*<br>• *Understand the indications and limitations of different tests to inform decision-making and interpret test results and its relevance to physiotherapeutic intervention.*<br><br>*Understand the collaborative role with Audiology therapies and investigations for accurate diagnosis:*<br><br>*Understand the role, assessments, investigations, interventions and treatments provided by other professionals and specialities:*<br><br>*Understand collaborative work with Pharmacological therapies for symptom or disease control:*<br><br>*Understand role of common medications, the expected benefits and limitations as applied to own practise:*<br><br>*Some Physiotherapists may be Independent Prescribers, and some may use the knowledge to sign post to other professionals.*<br><br>*Medications used to treat dizziness including:*<br><br>• *Analgesics*<br>• *Non-steroidal anti-inflammatory drugs*<br>• *Antihistamines*<br>• *Anti-epileptics*<br>• *Betablockers*<br>• *ACE inhibitors*<br>• *Angiotensin II receptor blockers*<br>• *Calcium channel blockers*<br>• *Benzodiazepines*<br>• *Anti-emetics*<br>• *Anti-depressants*<br>• *Diuretics*<br>• *Vasodilators*<br><br>*Surgical interventions:*<br>*Understand role of common surgical interventions used in managing Vestibular and Balance Dysfunction conditions, the expected benefits and limitations:*<br><br>• *Intratympanic injection of steroids and gentamicin*<br>• *Peri-lymphatic fistula*<br>• *Semi-circular Canal Dehiscence*<br>• *Infection*<br>• *Vestibular Schwannoma*<br>• *Perforated Tympanic membrane*<br>• *Neuro vascular cross compression/ Vestibular Paroxysmia* |

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| | • *Arnold Chairi Malformation (ACM)*<br>• *Arterio-Venous Malformation (AVM)*<br>• *Labyrinthectomy*<br>• *Other* |
| How to support the development of a management plan | • *Diagnostic criteria for conditions*<br>• *Use of clinical guidelines for management e.g. BPPV guidelines, NICE and Barany publications/ guidelines/ diagnositic criteria*<br>• *Management strategies / models of care for common Vestibular and Balance System Health problems that include supporting self-management and consider prevention, symptom control, disease control and restoration of function.*<br>• *Conditions where an early referral and diagnosis may be particularly important for optimising individuals' long-term outcomes; e.g. CVA, temporal arteritis, Normal pressure hydrocephalus, PD and MS* |
| Interventions used in the management of Vestibular and Balance System Health problems.<br><br>These skills and attributes needed by Physiotherapists relate to conditions and stage of professional development (appendix 2). In addition, the practitioner may have a greater level of knowledge and skills related to some interventions if they are within their scope of practice. That higher level is beyond the scope of this capability framework. | Supported self-management and behaviour change.<br><br>The impact and value of supported self-management and behaviour change for optimising physical activity, mobility, fulfilment of personal goals and independence. This includes the principles of:<br><br>• *shared decision-making*<br>• *supported self-management*<br>• *care and support planning*<br>• *patient education*<br>• *lifestyle advice*<br>• *behaviour change*<br>• *patient activation models*<br>• *health coaching techniques*<br><br>Rehabilitation interventions including vestibular and balance rehabilitation exercise or canal repositioning manoeuvres applied to condition management:<br><br>• *Understand the role of common rehabilitation interventions for vestibular and balance system conditions, the expected benefits and limitations.*<br>• *Advise on restoring function, including graded return to normal activity, navigation to self-management resources, and modifying activity for limited time periods.*<br>• *Canal repositioning manoeuvres: Epley, Semonts, Gufoni, Yacovino, BBQ Roll, Brandt-Darroff, etc.*<br>• *Vestibular-Visio-ocular- cervical-somatosensory rehabilitation techniques*<br>• *Habituation, accommodation, substitution*<br>• *Vestibular Ocular reflex VOR1 and 2 retraining/ Static and Dynamic Visual Acuity* |

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| | • *Visual motion desensitization techniques*<br>• *Cervical proprioception assessment and training*<br>• *Sensory balance rehabilitation*<br>• *Strength, flexibility and balance training*<br>• *Exercise and functional exercise therapy*<br>• *Gait re-education*<br>• *Falls management and prevention*<br>• *Use of outcome measures and evaluation of interventions*<br>• *Virtual reality training*<br>• *Exercise programmes to help individuals enhance, restore and maintain their mobility, emotional and mental health, function, quality of life and independence*<br>• *Active lifestyles for health and wellbeing*<br>• *Driving and Dizziness advice* |

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**Appendix 2:** Route from Novice to Advancing Practice: Introduction and Stages 1-3 Knowledge and Skills Matrix

| Conditions Knowledge and Skills | | Intro-duction Pre-reg 0-3yrs | Stage 1 Post-reg 3yrs+ | Stage 2 Post-reg 5yrs+ | Stage 3 Post-reg 7yrs+ |
|---|---|---|---|---|---|
| Acute vertigo | Unilateral Vestibulopathy<br>• Vestibular Neuritis<br>• Labyrinthitis | | | <br>•<br>• | <br>•<br>• |
| | BPPV<br>• Posterior Canal<br>• Lateral Canal<br>• Anterior Canal<br>• Atypical BPPV<br>• Light Cupula | <br>• | <br>• | <br>•<br>•<br>•<br>•<br>• | <br>•<br>•<br>•<br>•<br>• |
| | Central<br>• CVA<br>• Trauma<br>• MS<br>• Light/ heavy Cupula | | | <br>•<br>•<br>•<br>• | <br>•<br>•<br>•<br>• |
| Recurrent vertigo and disequilibrium | Episodic Vestibular Migraine | | | • | • |
| | Chronic Vestibular Migraine | | | • | • |
| | Meniere's Disease | | | | • |
| | Secondary Endolymphatic Hydrops | | | | • |
| | Headache syndromes and dizziness | | | | • |
| Chronic vertigo and imbalance | Vestibular Hypofunction / Vestibulopathy<br>• Unilateral<br>• Bilateral | | <br>•<br>• | <br>•<br>• | <br>•<br>• |
| | Functional Neurological Disorder & Dizziness | | | | • |
| | PPPD | | | • | • |
| | Visually Induced Dizziness | | | • | • |
| | Mal de Debarqument | | | | • |
| | Perilymphatic Fistula | | | | • |
| | Motion Sensitivity | | | • | • |
| | Cervico-genic Dizziness | | | • | • |
| | Autoimmune Dizziness | | | | • |
| | Semicircular Canal Dehiscence | | | | • |
| | Concussion/ TBI/ Head Trauma | | • | • | • |
| | Vestibular Schwannoma | | | • | • |
| | Vestibular Paroxysmia | | | | • |
| | Peripheral Neuropathy | | • | • | • |
| | Paraneoplastic Syndrome | | | | • |
| | Central dizziness<br>• MS<br>• CVA<br>• Arnold Chiari Malformation<br>• CANVAS (Cerebellar Ataxia Neuropathy and Vestibular Areflexia Syndrome).<br>• Cerebellar/ posterior fossa pathology<br>• Vascular Pathologies of the neck | | <br>•<br>• | <br>•<br>•<br>•<br><br><br>• | <br>•<br>•<br>•<br>•<br>•<br>• |

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| | • Spinal Myelopathy/ stenosis | | | • | • |
| Blackout and drop attacks | Pre-syncope & Syncope<br>• Orthostatic Hypotension<br>• Postural Orthostatic Tachycardic Syndrome (POTS)<br>• Medication | | • | • | •<br>•<br>• |
| | Cardiovascular<br>• Arrythmias | | • | • | • |
| | Neurological<br>• Epilepsy<br>• Pseudo-seizures | | | • | •<br>• |
| | Vestibular<br>• Otolith Crisis<br>• Drop attacks | | • | • | •<br>• |
| Dizziness, imbalance and falls/ frailty in the Elderly | Falls and imbalance | • | • | • | • |
| | Presbyvestibulopathy | • | • | • | • |
| | Presbyastasis<br>• Visual<br>• Vestibular<br>• Sensory<br>• Central<br>• Motor | •<br>•<br>•<br>•<br>• | •<br>•<br>•<br>•<br>• | •<br>•<br>•<br>•<br>• | •<br>•<br>•<br>•<br>• |
| | Cardiovascular | | | • | • |
| | Cognitive decline and Balance/ Dizziness | | | | • |
| Dizziness and mental health | Medication<br>Anxiety<br>Depression | | | •<br>•<br>• | •<br>•<br>• |
| Dizziness and medications related to condition management at level (within scope of practice) | Side effects/ interactions | | • | • | • |
| | Effects on Vestibular and Balance System and Testing | | | • | • |
| Practical procedures in vestibular and balance rehabilitation | Examination<br>• Cranial Nerve Testing<br>• Orthostatic Blood Pressure Test<br>• Upper and Lower Neuro muscular Testing<br>• Co-ordination Testing<br>• Visio-Ocular Motor Screen<br>• Head Impulse Test (HIT)<br>• Head shaking Nystagmus<br>• Use of Frenzel or Infrared VNG goggles.<br>• Falls assessment<br>• Dynamic and Static Balance testing<br>• Otoscopy | •<br>•<br>•<br>•<br>•<br>•<br>•<br>• | •<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>• | •<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>• | •<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>• |
| | Positional Tests<br>• Hallpike-Dix<br>• Supine Roll Test | | • | • | • |

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| | • Side ly Test<br>• Bow and Lean<br>• Modified Tests | | • | •<br>•<br>• | •<br>•<br>• |
| | Canal Repositioning Procedures (CRPs)<br>• Epley/ modified Epley<br>• Semonts/ Semonts +/ demi Semont<br>• Gufoni<br>• BBQ Roll<br>• Forced Prolonged positioning<br>• Casani<br>• Yacovino<br>• Brandt-Daroff Exercise<br>• Deep Head Hanging<br>• Gans manoeuvre<br>• Other Modified Canal Repositioning Procedures (CRPs) | | <br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>• | <br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>• | <br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>• |
| | Exercise Therapy<br>• VOR x1 & VOR x2<br>• Modification of VOR<br>• Gait and balance rehabilitation<br>• Otago programme<br>• Functional movement training | •<br><br>•<br><br>• | •<br><br>•<br><br>• | •<br>•<br>•<br><br>•<br>• | •<br>•<br>•<br><br>•<br>• |
| | Strength Training Exercises<br>• Lower Limb<br>• Upper Limb<br>• Trunk | •<br>•<br>• | •<br>•<br>• | •<br>•<br>• | •<br>•<br>• |
| | Outcome Measures<br>• Dizziness Handicap Inventory (DHI)<br>• x5 sit to stand<br>• 4 square step test<br>• ABC scale<br>• mCTSIB<br>• Mini BESTest<br>• Short/ long DGI<br>• TUAG/ Dual TUAG<br>• Other valid reliable measures | <br>•<br><br><br><br>•<br><br>•<br>•<br> | <br>•<br>•<br><br>•<br>•<br><br>•<br>•<br> | <br>•<br>•<br>•<br>•<br><br>•<br>•<br> | <br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>• |
| | Balance Training Exercises | • | • | • | • |
| | Cervical Proprioception Training | | • | • | • |
| | Visual Motion Training | | | • | • |
| | Digital/ Virtual training | | | • | • |
| | Condition Management Strategies<br>• Coaching/ Motivational Interviewing<br>• Cognitive Behavioural Therapy<br>• Acceptance Commitment Therapy/ Solution Focus Brief Therapy<br>• Relaxation<br>• Breathing Techniques<br>• Pacing | <br><br>•<br><br><br>•<br>• | <br>•<br>•<br>•<br>•<br>•<br>• | <br>•<br>•<br>•<br>•<br>•<br>• | <br>•<br>•<br>•<br>•<br>•<br>• |

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| | • Fatigue management<br>• Active, Health & Wellbeing Lifestyle management | •<br>• | •<br>• | •<br>• | •<br>• |

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