NMC proficiencies: relevance to genomic practice

Platform 1. Being an accountable professional	
Outcomes	**Genomic practice**
1.2 understand and apply relevant legal, regulatory and governance requirements, policies, and ethical frameworks, including any mandatory reporting duties, to all areas of practice, differentiating where appropriate between the devolved legislatures of the United Kingdom	Consent and ethics. Data protection. Research arm of Genomic Medicine Service (GMS). Guidelines recommending genomics (FHx taking, testing, cascade screening) to inform diagnosis, management or treatment selection.
1.7 demonstrate an understanding of research methods, ethics and governance in order to critically analyse, safely use, share and apply research findings to promote and inform best nursing practice	Research arm of GMS, clinical trials based on genomic findings. Studies evidencing use of genomics to inform patient care and role of the nurse in genomic activities.
1.8 demonstrate the knowledge, skills and ability to think critically when applying evidence and drawing on experience to make evidence informed decisions in all situations	Broad awareness of genomics, associated conditions and examples of technologies.
1.9 understand the need to base all decisions regarding care and interventions on people's needs and preferences, recognising and addressing any personal and external factors that may unduly influence their decisions	If a genomic condition is suspected, consider impact on family (sometimes community), culture, religion, prior experience and personal values.
1.11 communicate effectively using a range of skills and strategies with colleagues and people at all stages of life and with a range of mental, physical, cognitive and behavioural health challenges	Communicating genomics using correct and sensitive terminology dependent on audience.
1.13 demonstrate the skills and abilities required to develop, manage and maintain appropriate relationships with people, their families, carers and colleagues	General awareness of some of the sensitivity and uniqueness of interventions and having/being at risk of or caring for someone with an inherited condition.
1.14 provide and promote non-discriminatory, person-centred and sensitive care at all times, reflecting on people's values and beliefs, diverse backgrounds, cultural characteristics, language requirements, needs and preferences, taking account of any need for adjustments	Mindfulness when discussing genomic interventions.
1.18 demonstrate the knowledge and confidence to contribute effectively and proactively in an interdisciplinary team	Engaging across specialisms when genomics is involved.
Platform 2. Promoting health and preventing ill health	
Outcomes	**Genomic practice**
2.2 demonstrate knowledge of epidemiology, demography, genomics and the wider determinants of health, illness and wellbeing and apply this to an understanding of global patterns of health and wellbeing outcomes	Understanding of the impact genomics has on a population, for example, certain populations have higher incidences of particular conditions.
2.4 identify and use all appropriate opportunities, making reasonable adjustments when required, to discuss the impact of smoking, substance and alcohol use, sexual behaviours, diet and exercise on mental, physical and behavioural health and wellbeing, in the context of people's individual circumstances	How does lifestyle impact on genomics? Impact on predicted risk, prevention.

2.5 promote and improve mental, physical, behavioural and other health related outcomes by understanding and explaining the principles, practice and evidence-base for health screening programmes	Distinguishing between screening and diagnostic tests. Use population data (polygenic risk scores) to stratify individuals for screening programmes and/or health promotion messaging.
2.7 understand and explain the contribution of social influences, health literacy, individual circumstances, behaviours and lifestyle choices to mental, physical and behavioural health outcomes	Misconceptions about genomics, societal perception of genomics, implications of being in receipt of personal genomic information.
2.8 explain and demonstrate the use of up to date approaches to behaviour change to enable people to use their strengths and expertise and make informed choices when managing their own health and making lifestyle adjustments	Reality of what a genomic result or diagnosis means, for example, in some cases not 100% diagnostic. Use of genomic tests to stratify interventions, for example, screening, devices (ICC) or lifestyle.
2.9 use appropriate communication skills and strength based approaches to support and enable people to make informed choices about their care to manage health challenges in order to have satisfying and fulfilling lives within the limitations caused by reduced capability, ill health and disability	Awareness and understanding of a genomic test result and the implications, for example, on family, lifestyle, possible interventions.
2.10 provide information in accessible ways to help people understand and make decisions about their health, life choices, illness and care	Know where or who to signpost patients to, for example, genetic services – dependent on condition? Family support groups, tailor information to individual.
2.11 promote health and prevent ill health by understanding and explaining to people the principles of pathogenesis, immunology and the evidence-base for immunisation, vaccination and herd immunity	The role genomics plays in these principles.
2.12 protect health through understanding and applying the principles of infection prevention and control, including communicable disease surveillance and antimicrobial stewardship and resistance	Genomics and infectious disease.
Platform 3. Assessing needs and planning care	
Outcomes	**Genomics practice**
3.1 demonstrate and apply knowledge of human development from conception to death when undertaking full and accurate person-centred nursing assessments and developing appropriate care plans	Impact germline (born with) vs somatic (acquire throughout life) variants may have on diagnosis, prediction and prevention. Relevance of genomics across life course.
3.2 demonstrate and apply knowledge of body systems and homeostasis, human anatomy and physiology, biology, genomics, pharmacology and social and behavioural sciences when undertaking full and accurate person-centred nursing assessments and developing appropriate care plans	Awareness of the role genomics plays in common and rare conditions (importance of FHx).
3.3 demonstrate and apply knowledge of all commonly encountered mental, physical, behavioural and cognitive health conditions, medication usage and treatments when undertaking full and accurate assessments of nursing care needs and when developing, prioritising and reviewing person-centred care plans	Pharmacogenomics or how an individual's genomic information may influence their care.

3.5 demonstrate the ability to accurately process all information gathered during the assessment process to identify needs for individualised nursing care and develop person-centred evidence-based plans for nursing interventions with agreed goals	Patient family histories (genetic conditions) and genomic information that may impact on treatment and care (pharmacogenomics) of individual or other family members.
3.6 effectively assess a person's capacity to make decisions about their own care and to give or withhold consent	Consent for genomic testing? Decisions about treatment and interventions, and other 'genomic-related' management decisions.
3.11 undertake routine investigations, interpreting and sharing findings as appropriate	Genomic information may need to be considered as well.
3.12 interpret results from routine investigations, taking prompt action when required by implementing appropriate interventions, requesting additional investigations, or escalating to others	Understanding or awareness of genomic information on patient records that may impact on investigations which could need escalating. Knowing when to refer.
3.15 demonstrate the ability to work in partnership with people, families and carers to continuously monitor, evaluate and reassess the effectiveness of all agreed nursing care plans and care, sharing decision making and readjusting agreed goals, documenting progress and decisions made	Awareness if patient is undergoing genomic investigation or if it is required. Implications for ongoing care of those with a genetic diagnosis. Recognising patient/family expertise.
Platform 4. Providing and evaluating care	
Outcomes	**Genomics practice**
4.2 work in partnership with people to encourage shared decision making in order to support individuals, their families and carers to manage their own care when appropriate	Being able to communicate to patient and family if genomics is involved. Recognise patient/family expertise.
4.3 demonstrate the knowledge, communication and relationship management skills required to provide people, families and carers with accurate information that meets their needs before, during and after a range of interventions	Being able to communicate to patient and family if genomics is involved. Identify and access evidence base.
4.5 demonstrate the knowledge and skills required to support people with commonly encountered physical health conditions, their medication usage and treatments, and act as a role model for others in providing high quality nursing interventions when meeting people's needs	Genomics of common health conditions, impact genomics has on drug selection and delivery.
4.14 understand the principles of safe and effective administration and optimisation of medicines in accordance with local and national policies and demonstrate proficiency and accuracy when calculating dosages of prescribed medicines	Pharmacogenomics, or the influence that genomic variation can have on treatment strategies.
4.15 demonstrate knowledge of pharmacology and the ability to recognise the effects of medicines, allergies, drug sensitivities, side effects, contraindications, incompatibilities, adverse reactions, prescribing errors, and the impact of polypharmacy and over the counter medication usage	Pharmacogenomics, or the influence that genomic variation can have on treatment strategies.
4.17 apply knowledge of pharmacology to the care of people, demonstrating the ability to progress to a prescribing qualification following registration	Pharmacogenomics, or the influence that genomic variation can have on treatment strategies. Implement testing when recommended prior to prescribing.

Platform 5. Leading and managing nursing care and working teams	
Outcomes	**Genomics practice**
5.4 demonstrate understanding of the roles, responsibilities, and scope of practice of all members of the nursing and interdisciplinary team and how to make the best use of the contributions of others in providing care	Importance of MDT and interacting with specialists and non-specialists.
Platform 7. Coordinating care	
Outcomes	**Genomics practice**
7.1 understand and apply the principles of partnership, collaboration and interagency working across all relevant sectors	MDT and interprofessional learning? Genomics may span different specialisms and across the whole life course. Referral pathways. Mainstream vs specialist genomics.
7.8 understand the principles and processes involved in supporting people and families with a range of care needs to maintain optimal independence and avoid unnecessary interventions and disruptions to their lives	Management and care for those with a genetic condition.

Annexe A: Communication and relationship management skills	
Skills	**Relevance to genomics**
1. Underpinning communication skills for assessing, planning, providing and managing best practice, evidence-based nursing care	
1.9 confidently and clearly present and share verbal and written reports with individuals and groups	Awareness of genomic or basic understanding of genomic information on patient records or reports, MDT
1.10 analyse and clearly record and share digital information and data	Input genomic test results, and family risk assessments?
1.11 provide clear verbal, digital or written information and instructions when delegating or handing over responsibility for care	Communicating genomic information
2. Evidence-based, best practice approaches to communication for supporting people of all ages, their families and carers in preventing ill health and in managing their care	
2.1 share information and check understanding about the causes, implications and treatment of a range of common health conditions including anxiety, depression, memory loss, diabetes, dementia, respiratory disease, cardiac disease, neurological disease, cancer, skin problems, immune deficiencies, psychosis, stroke and arthritis	The impact of genomics on common health conditions
2.2 use clear language and appropriate, written materials, making reasonable adjustments where appropriate in order to optimise people's understanding of what has caused their health condition and the implications of their care and treatment	Communicating genomic information to patients
2.9 Engage in difficult conversations, including breaking bad news and support people who are feeling emotionally or physically vulnerable or in distress, conveying compassion and sensitivity.	Communicating genomic information to patients. Risk, lived experience, misconceptions. Word choice
Annexe B: Nursing procedures	
Skills	**Relevance to genomics**
Part 1: Procedures for assessing people's needs for person-centred care	
1. Use evidence-based, best practice approaches to take a history, observe, recognise and accurately assess people of all ages:	
1.2 Physical health and wellbeing 1.2.1 Symptoms and signs of physical ill health	Family history, red flags and clinical clues
Part 2: Procedures for the planning, provision and management of person-centred nursing care	
9. Use evidence-based, best practice approaches for meeting needs for care and support with the prevention and management of infection, accurately assessing the person's capacity for independence and self-care and initiating appropriate interventions	
11. Procedural competencies required for best practice, evidence-based medicines administration and optimisation	
11.10 recognise and respond to adverse or abnormal reactions to medications	Pharmacogenomics