2023/2024 Applications approved by HSC-PBPP to 30th April 2023

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Application Reference	Applicant	Applicant Organisation	Title of Study	Approved/ Approved with conditions	Level of Approval	Clocked Time (days)
2223-0103 SR171	Heather Clark	University of Aberdeen	Aberdeen Children of the 1950s cohort study – transfer of NHSCR deaths and embarkations	Approved	Tier 1 Panel Meeting	19
2223-0068	Professor Jill Belch	University of Dundee/NHS Tayside	Fourth follow-up of SHHEC Cohort (renewal to 1516-0578)	Approved	Tier 1 Review	39
2122-0095	Elizabeth Thomson	University of Glasgow	Management to Optimise Outcomes in Unstable Coronary Syndromes: a developmental clinical study of management guided by coronary angiography combined with fractional flow reserve (FFR) measurement versus management guided by coronary angiography alone (standard care) in patients with non-ST elevation MI)	Approved	Tier 1 Panel Meeting	14
1920-0040	Helen Wohlgemut	University of Glasgow	The Scale and Burden of Upper Limb Trauma in Scotland	Approved with conditions	Tier 1 Panel Meeting	26

Lay summaries for approved applications

1920-0040 Helen Wohlgemut University of Glasgow The Scale and Burden of Upper Limb Trauma in Scotland

Worldwide upper limb injuries (ULI) are a leading cause of disability. ULI refers to any injury to the bones, joints, muscles, tendons, nerves, or blood vessels of the arm, forearm, wrist, hand, or fingers. It is the most common reason to go to the emergency department. Severe injuries lead to loss of employment, dependency, and a reduced quality of life. Less severe injuries require time away from employment for physiotherapy. This has implications on patients' physical and financial wellbeing. The ULI volume has financial implications to the NHS and the wider economy. Highlighting the need to provide a cost-effective service, and help people return to work and school quickly, and safely.

Patients are treated by different types of healthcare professional, and frequently must travel to receive this care. This can be difficult, frustrating, and costly in terms of travel and time. Before we make improvements, we need to know more. We don't know enough about the people affected, causes, cost, disabilities caused, and results.

Scotland routinely collects data on ULI. We can use this information to plan better services, which will cost the NHS and patients less money and time, whilst ensuring the best care. Our research group specialises in ULI care, data analysis, public health, and economics. Using these data, we plan to work out how to improve organisation of NHS care for patients with these injuries. Our research findings will be shared with healthcare professionals to improve care for people with ULI in Scotland and across the world.

2122-0095 Elizabeth Thomson University of Glasgow Management to Optimise Outcomes in Unstable Coronary Syndromes: a developmental clinical study of management guided by coronary angiography combined with fractional flow reserve (FFR) measurement versus management guided by coronary angiography alone (standard care) in patients with non-ST elevation MI)

Approximately 10,000 people have a heart attack in Scotland each year. A heart attack is caused by a blocked blood vessel supplying the heart. Most patients who experience a heart attack have several narrowed blood vessels.

The treatment options include tablets only, placing a thin metal tube (stent) into the affected blood vessels, or coronary artery bypass surgery.

Usually, blood vessel narrowings are challenging for doctors to reliably assess. Fractional flow reserve (FFR) is a new test of whether the narrowing is severe i.e. blocking blood flow to the heart, or not.

In 2011 – 2013, we undertook a funded by the British Heart Foundation. We assessed whether FFR-guided management is safe. 250 patients were included in NHS Scotland. FFR-guided management was feasible (all patients), changed the diagnosis (1 in 5 patients), and reduced the use of stents and bypass surgery (1 in 10 patients). However, by one year, more patients experienced a further heart attack suggesting avoidance of stents and surgery may not be safe in the longer term.

Based on ethics and grant approvals, we wish to update the results hence our application to the HSC-PBPP. The analyses will be undertaken by the University of Glasgow

The results urgently needed to inform doctors and their patients on whether the FFR test should be routinely used in the NHS to guide the treatment of heart attack patients. There are no other studies in the world that can answer this question.

2223-0068 Professor Jill Belch University of Dundee/NHS Tayside Fourth follow-up of SHHEC Cohort (renewal to 1516-0578)

Between 1984 and 1995 18,000 Scots volunteered for health screening and long-term follow-up to study disease causes and prevention: the Scottish Heart Health Extended Cohort (SHHEC).

We aim to use SHHEC and linked hospital data to identify novel risk factors for disease, potentially informing future medical practice and treatments eg dementia, cancer, macular degeneration and cardiovascular disease. This study is an extension of a previous application and required so that we can finish planned investigations which were delayed due to covid and staff changes eg change of statistician with a period of no-one in post, technician leaving and not replaced (blood analyses), and during covid the labs were shut. Further analyses took longer than anticipated.

We are close to completing the following: a systematic review with SHHEC data for macular degeneration; sex bias and cardiovascular operations; prediction of cancer using ASSIGN risk score. Publications are drafted but require access to data for final analyses.

We have analysed blood samples taken originally, to investigate novel risk factors for dementia and osteoporosis. This was delayed for reasons as above. A grant of £100,000k was obtained for the tests and we require access to the eDRIS data to determine if these novel biomarkers will be useful for early diagnosis of those at risk, allowing early prevention. We were also in the process of starting a systematic review for dementia.

Further work includes: hormone replacement therapy (HRT) and cardiovascular events; statin use and peripheral arterial disease; and, statin compliance; and cancer incidence and markers.

2223-0103 SR171 Heather Clark University of Aberdeen Aberdeen Children of the 1950s cohort study – transfer of NHSCR deaths and embarkations

The Aberdeen Children of the 1950s (ACONF) research database provides a unique opportunity to advance research concerning influences on health throughout life and across generations.

The ACONF research database is made up of information collected both in a survey carried out on all primary school children in Aberdeen in 1962, and a follow up of these children as adults by questionnaire in 2001. This information includes from early life – their school tests, data extracted from their birth records and some information on their social circumstances. In later life, the 2001 questionnaire asked about their circumstances including health and wellbeing; lifestyle characteristics (e.g. smoking and drinking) ; employment and family. This data has also been linked to data describing the environment in the 1960s (i.e. from the census of the time) and to descriptive data relating to the relevant primary schools attended.

The cohort is based in Aberdeen, but the information has been used extensively by researchers investigating life course epidemiology i.e. the influences, both biological and sociological, in early life and even across generations that affect later health and wellbeing. The data has also been used collectively with other cohort information, for example to review the association between size at

birth and risk of type II diabetes in later life. There is a continuing value in maintaining the cohort in the long term, for example to enable research on cognitive ageing or resilience in older age.