

# Research, Innovation and Knowledge

## Annual Report 2022-2023



**© NHS Fife 2023**  
**Published December 2023**

This document is licensed under the Creative Commons Attribution-Noncommercial-NoDerivatives 4.0 International Licence. This allows for the copy and redistribution of this document as long as NHS Fife is fully acknowledged and given credit. The material must not be remixed, transformed or built upon in any way. To view a copy of this licence, visit <https://creativecommons.org/licenses/by-nc-nd/4.0/>

**[www.nhsfife.org](http://www.nhsfife.org)**

# Contents

1. Executive Summary.....	2
2. Introduction.....	4
3. Research, Innovation and Knowledge Activity and Income.....	6
4. Research, Innovation and Knowledge Finance and Income .....	13
5. Innovation .....	18
6. Clinical Innovator Career Spotlight .....	21
8. Research, Innovation and Knowledge Clinical Research Support.....	28
9. Clinical Research Practitioner Career Spotlight .....	33
10. Clinical Researcher Career Spotlight .....	36
11. Clinical Trials Pharmacy Team.....	38
12. Research, Innovation and Knowledge RIK Approvals and Support Team.....	40
13. Research, Innovation and Knowledge Quality and Performance .....	44
14. Research, Innovation and Knowledge Education and Training .....	47
15. Research, Innovation & Knowledge User Experience.....	50
16. Opportunities and Challenges.....	53
17. Conclusions.....	55
18. Publications .....	56
19. Appendix 1 – RIK Structure .....	75

# 1. Executive Summary



**Dr Christopher McKenna**

Medical Director and Executive Lead for Research, Innovation and Knowledge

As the Executive Lead for Research, Innovation and Knowledge (RIK) it is my absolute pleasure to introduce the 2022/23 RIK Annual Report. This report is a reflection of the significant, high quality work undertaken by the RIK team as well as those enthusiastic clinicians across NHS Fife who make research and innovation a priority in their career portfolio. Fife may be a medium sized Health Board, but like in many areas, we punch well above our weight in regard to our Research and Innovation activity. Our busy clinical research facilities allow people in Fife to participate in research which gives access to cutting edge treatments and hence better clinical outcomes. These facilities have seen increasing numbers of participants in 22/23 and NHS Fife has consistently high numbers of patients recruited to national and European clinical trials. The monthly publications bulletin of NHS Fife authors confirms our clinical team's enthusiasm and commitment to research.

We have also participated in a number of national studies during 22/23 including SIREN (the National Covid antibody study) where more than 400 members of NHS Fife staff were recruited. We continue to grow and develop our innovation team and on behalf of South East Health Innovation Hub (HISES) they were successful in a bid for the administration of a £6m Reducing Drug Deaths national program, co-funded by Chief Scientists Office and Office for Life Sciences.

2022 saw the first Annual Joint NHS Fife and University of St Andrews Research and Innovation Symposium. This exciting and incredibly well attended event saw the Chief Scientist, Dame Anna Dominiczak, deliver a keynote talk on the development of the Accelerated National Innovation Adoption (ANIA) pathway. This meeting is one of the steps the University and the Health Board are taking to grow and strengthen our strategic relationship.

2022 was also the year that we saw Professor Alex Baldacchino retire from his role as the Director for Research and Development in NHS Fife. I would take this opportunity to thank him for the contribution that he has made of the years he has been in post to raise the profile of Research and Development in NHS Fife, such that we can claim to be such an incredibly successful team and service.

The NHS remains one of the most valuable assets that we have in Scotland, but it is under constant operational pressure. The recovery from the pandemic is slow and is fraught with challenges. However, our ability to do clinical research and respond to challenges through innovation is fundamental in this recovery. Hence, why, despite all the pressures we face, I am steadfast in my belief that we can make a difference and why I will continue to provide my utmost support to the work that the RIK team are committed to.

**Dr Christopher McKenna**

Medical Director and Executive Lead for Research, Innovation and Knowledge

## 2. Introduction



**Professor Frances Quirk**  
Research, Innovation & Knowledge  
Assistant Director, NHS Fife

This period was marked by progressive recovery from the impact of the COVID-19 pandemic, with a wider range of studies opening or restarting from suspension whilst some COVID-19 studies continued. We supported the majority of Scotland based COVID-19 studies and recruited well to many, particularly the SIREN study, with over 400 NHS Fife staff consenting as participants.

We reviewed our ways of working to adapt to the lessening of COVID-19 restrictions with most teams committing to a hybrid model, providing greater flexibility and supporting staff preferences and choice.

We sadly said Farewell to longstanding members of the original R&D team in May and June of 2022, Aileen Yell who was the research coordinator when the R&D office was very first established, David Chinn, as Senior Research Advisor also involved in the early days and Professor Alex Baldacchino, Director R&D, the very first Director and along with Amanda Wood responsible for laying the foundations of R&D at NHS Fife. Aileen and David, whilst retired, have maintained an association with us, continuing to contribute to their areas of expertise. Alex has retired fully from NHS Fife and is concentrating on his academic career, so we remain connected through our partnership with the University of St Andrews.

As founding contributors to research and development, research education and training and the growth of research and innovation at NHS Fife we thank them all, sincerely and hope to maintain connections to continue to benefit from their knowledge and experience.

This period also saw significant changes for the Innovation team with the awarding of the management of the National Reducing Drug Deaths Program, a £6m program co-funded by the Chief Scientists Office and the Office for Life Sciences supporting the development of solutions to prevent fatal overdose. NHS Fife Innovation team will administer the program for its 2 year cycle on behalf of the South East Health Innovation Hub (HISES) and additional resources will flow to support this.

Our ongoing and developing partnership with the University of St Andrews was evidenced by the inaugural Research and Innovation Symposium, held at Balgedie House, Glenrothes, with over 130 attendees. The event provided the opportunity to showcase joint work, including presentations from PhD students and Early Career Researchers and networking in breaks to develop connections. A commitment has been made to this being an annual event and we look forward to planning for 23/24 and this being a fixture in the calendar.

Additional joint appointments both clinical and non-clinical and Honorary Fellowships with the University of St Andrews have produced benefits in terms of closer collaboration and contribution to an expanding NHS Fife research culture. Further work has advanced the Joint Research Office project and papers were submitted to Executive Leads for the two organisations for consideration. The Joint Research Office team reviewed and refined the current NHS Fife and University of St Andrews research governance processes and the provision of relevant education and training to facilitate collaborative working and contribute to a more effective and efficient platform for joint research.

We have actively supported the wellbeing of the RIK team through a well-attended 'Appreciation' Event, to thank teams for their magnificent efforts over the period of the COVID-19 pandemic and recovery and identified a Wellbeing Champion who will continue to identify ways in which the health and wellbeing of the team can be supported.

We look forward to another successful year in 2023/2024.

**Professor Frances Quirk**

Assistant Director Research, Innovation and Knowledge



# 3. Research, Innovation and Knowledge Activity and Income

## Research

### 1. R&D Studies and Recruitment

#### 1. Number of Research Studies & Participants Recruited

The following R&D activity summary includes the studies open to recruitment in NHS Fife at some point within the 2022-2023 financial year. A further 54 studies had completed recruitment but were still collecting data during this period.

Data has been obtained from the NHS Fife R&D database (EDGE) and excludes PIC (Patient Identification Centre) and NLI (No Local Investigator) studies. Data are updated continually, and figures are accurate at the time of collation.

#### 1.1 Number of Commercial/Non-commercial Studies

Research is categorised as '*commercial*' (funded by the pharmaceutical or medical device industry) or '*non-commercial*'. Non-commercial research is further divided into "eligible" or "non-eligible" (NEF) depending on the organisation(s) funding the study.

Eligible studies are those that are funded by an organisation on the Chief Scientist Office (CSO) eligible funders list (which includes some charitable organisations, research councils or Government bodies). NHS Fife receives funding from the CSO via NHS Research Scotland (NRS) to support the running of these 'eligible' studies. NEF studies are those that either have no funding or are funded by an organisation which is not included on the CSO eligible funders list. NHS Fife does not receive any funding from CSO to support the running of these studies.

A total of 87 studies were actively recruiting participants during this period.

The specialties involved in commercial studies were: Dermatology (2), Musculoskeletal (2), and, Diabetes (2).

The top 6 non-commercial research active areas in terms of number of studies were: Cancer (9), Stroke (8), Trauma & Emergencies (7), Children (6), Mental Health (6) and Respiratory Disorders (6).



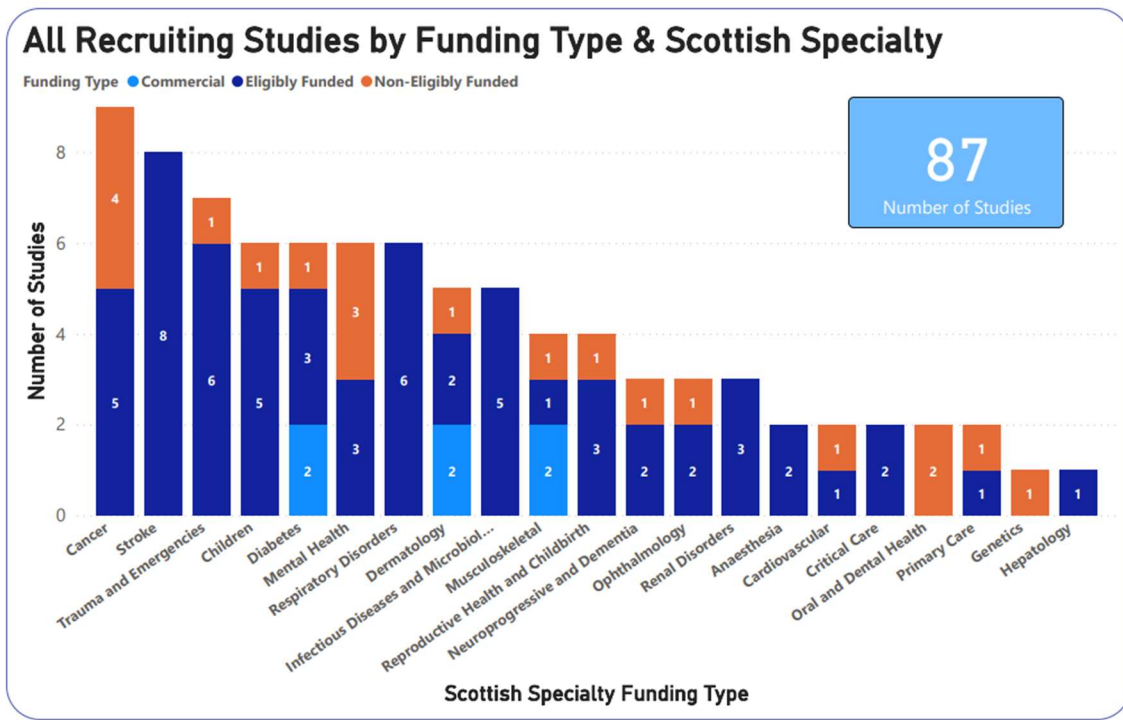


Fig 1

### 1.2 Number of Participants Recruited

A total of 1444 new participants were recruited during this period.

A total of 132 participants were recruited in Commercial studies, Diabetes (93), Musculoskeletal (36) and Dermatology (3).

1312 participants were recruited in Eligibly funded studies.

The top 6 Scottish Specialties in 2022-2023 in terms of recruited participants for Eligibly funded studies were: Reproductive Health & Childbirth (473), Trauma & Emergencies (393), Cardiovascular (131), Infectious Diseases & Microbiology (130), Stroke (59) and Respiratory Disorders (56).

## Total Recruitment by Scottish Specialty and Funding Type

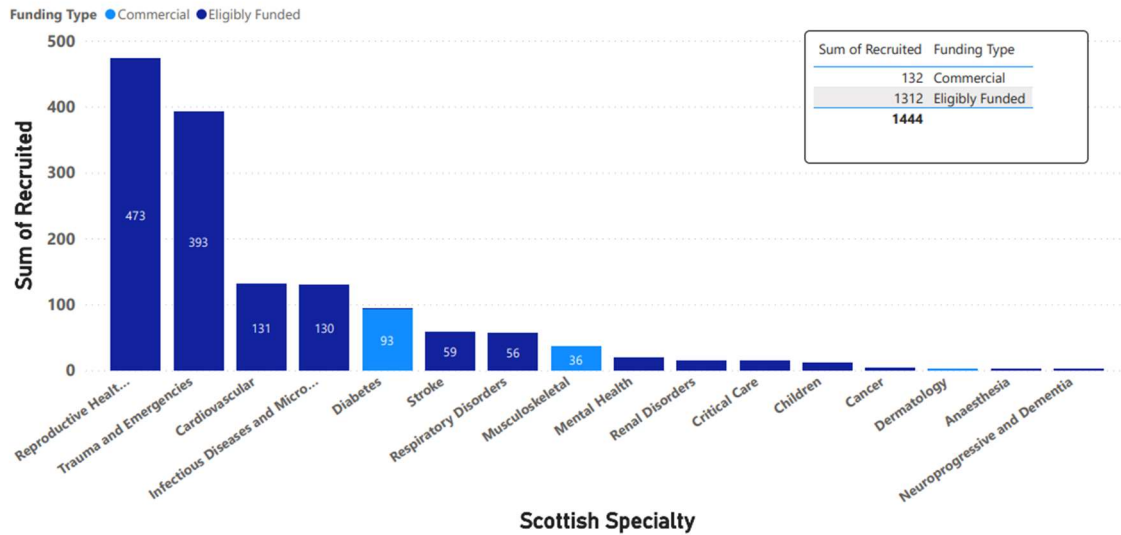


Fig 2

### 1.3 Types of Study

NHS Fife has a balanced portfolio of studies ranging from observational to complex interventional studies (including Clinical Trials of Medicinal Products (CTIMP)) across a number of therapeutic areas.

Of the total of 87 studies, 20 were Clinical Trials of a Medicinal Product, 18 were Clinical Trials of an Intervention and 2 were Clinical Trials of a Medical Device.

The number of studies according to study type and disease specialty are shown below:

## Recruiting Studies by Study Type & Scottish Specialty

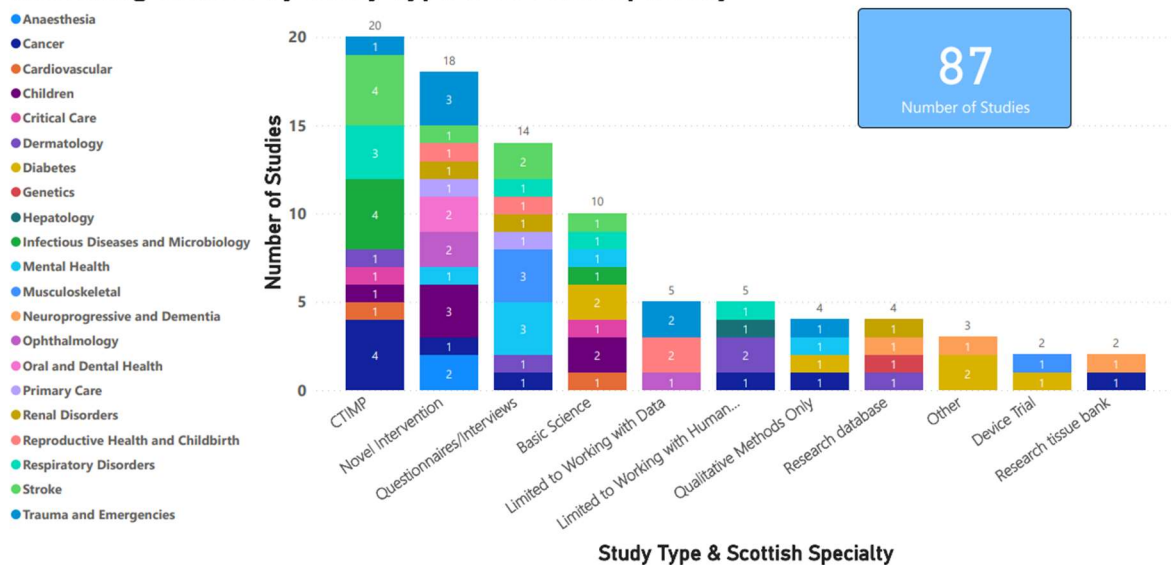


Fig 3

## 2. NHS Fife Sponsored Studies

The UK Policy Framework for Health and Social Care 2017 (UKPF) and The Medicines for Human Use (Clinical Trials) Regulations 2004 require that an organisation taking on the role of 'Sponsor' must ensure that there are proper arrangements in place to initiate, manage, monitor and finance a study. Prior to accepting this role, NHS Fife will undertake a review and risk assessment to ensure that the acceptance of sponsorship is desirable and appropriate.

NHS Fife does not currently have the infrastructure in place to Sponsor CTIMPs but between 2022 and 2023 NHS Fife Sponsored 4 Non-CTIMP studies. These were all non-interventional studies e.g., studies administering questionnaires or interviews or limited to working with data.

**Fife Sponsored Studies by Scottish Specialty & Study Type**

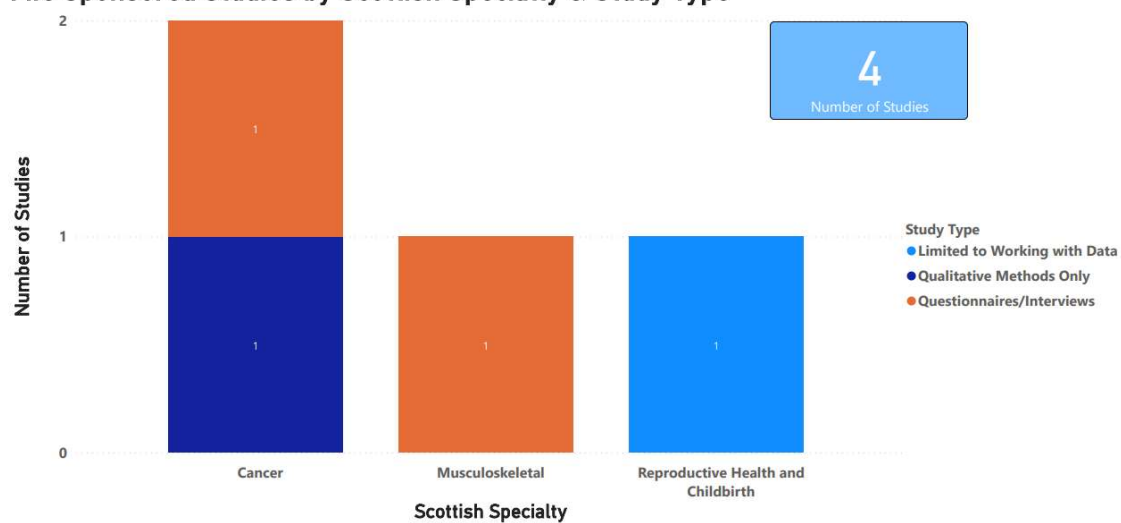


Fig 4

## 3. NHS Fife Research Active Staff

NHS Fife staff can be involved in the delivery of research by becoming the Chief Investigator (CI), or Principal Investigator (PI). The CI is the person designated as having overall responsibility for the design, conduct and reporting of a study, while the PI is the named individual who has responsibility for oversight of the study at a specific site for multisite studies.

### 3.1 NHS Fife Chief Investigators

A total of 8 NHS Fife staff members acted as Chief Investigator for a research study over this period.

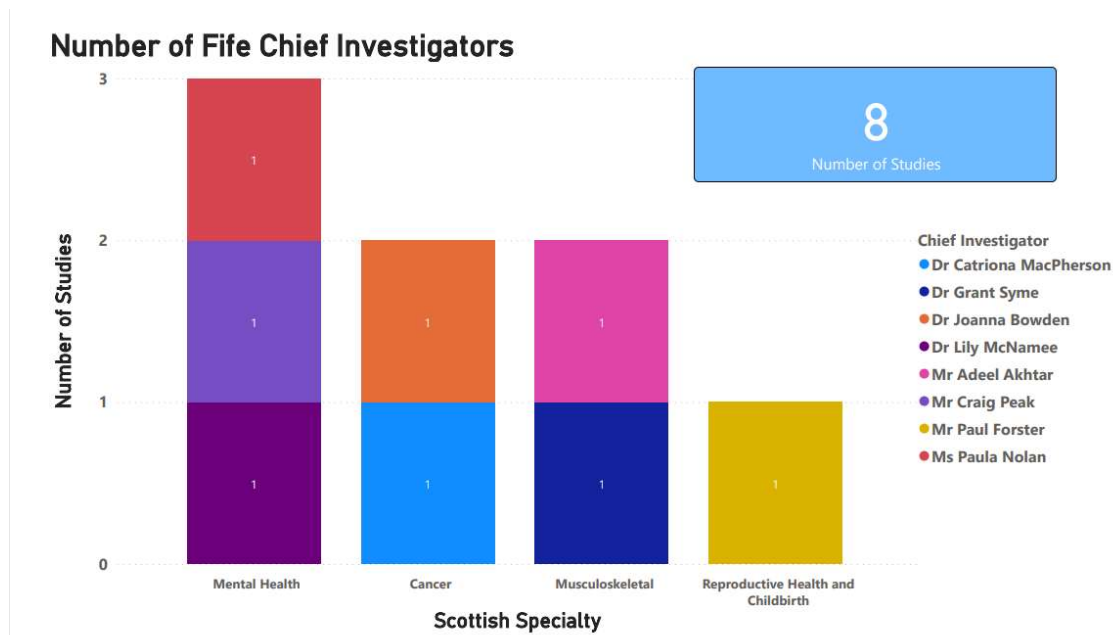


Fig 5

### 3.2 NHS Fife Principal Investigators

A total of 56 NHS Fife staff members acted as Principal Investigator for a research study.

The top 8 research active Scottish Specialties with NHS Fife PIs were Cancer (6), Children (6), Mental Health (6), Dermatology (4), Musculoskeletal (4), Reproductive Health and Childbirth (4), Respiratory Disorders (4) and Trauma & Emergencies (4).

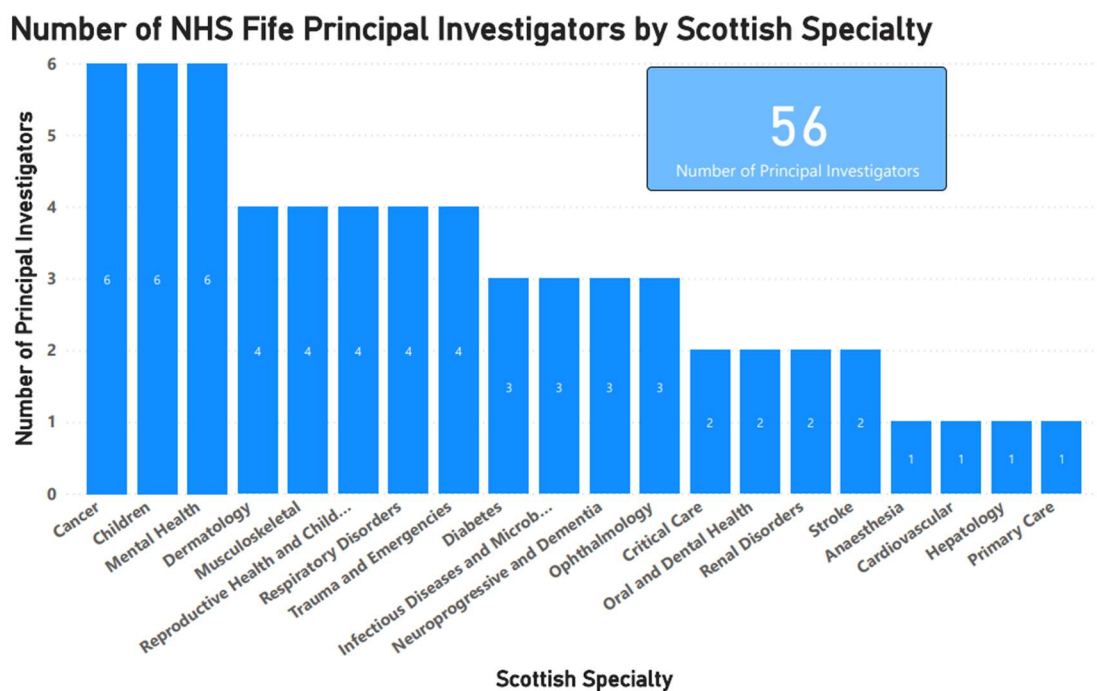


Fig 6

The majority of staff were Principal Investigator on a single study while 4 members of staff were Principal Investigator on 4 or more studies.

**Number of Studies for each Principal Investigator**

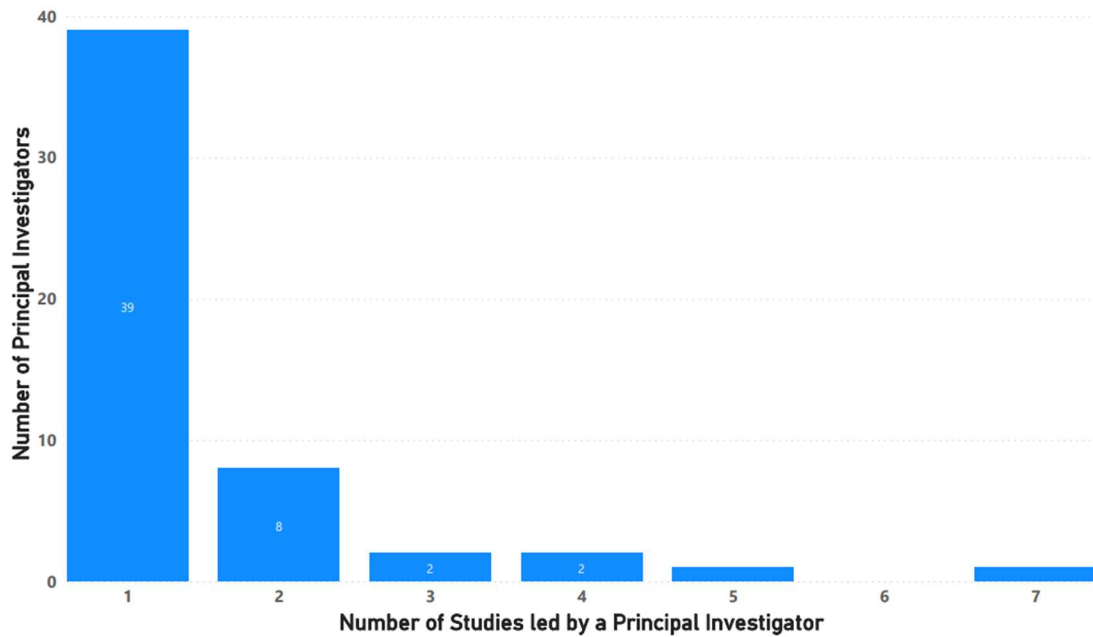


Fig 7

#### 4. Trends in Research Activity

The following figures show the total recruitment and total number of studies for 2019-2020, 2020-2021, 2021-2022 and 2022-2023. The figures for 2019-2020, 2020-2021 and 2021-2022 reflect the figures reported in the Annual report for those financial years.

The increase in Eligibly funded recruitment seen in 2021-2022 (Fig 8) was due mainly to two large questionnaire studies which accounted for 503 and 794 recruits respectively.

### Total Recruitment by Financial Year

Funding Source ● Commercial Studies ● Eligibly Funded

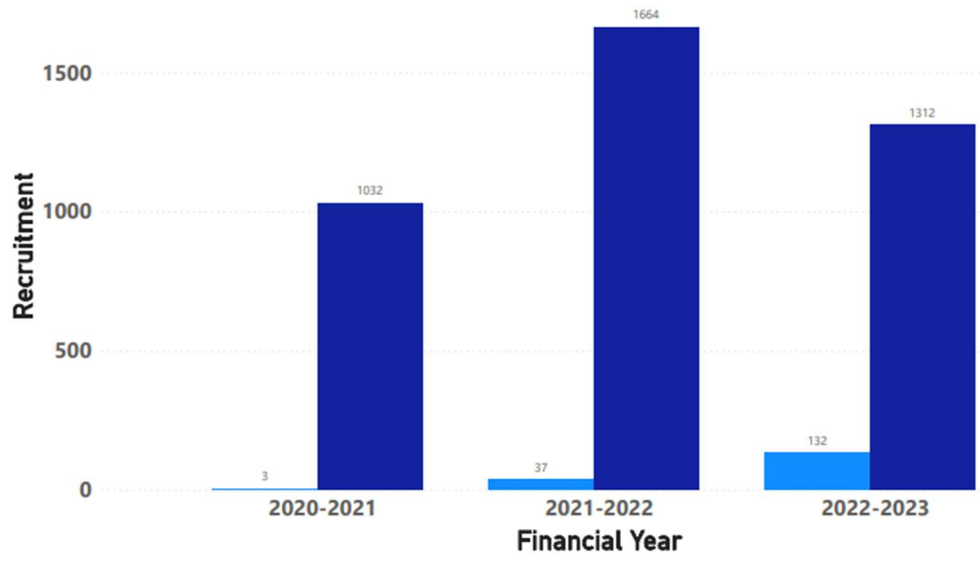


Fig 8

### Number of Studies by Financial Year

Funding Source ● Commercial Studies ● Eligibly Funded ● Non-Eligibly Funded

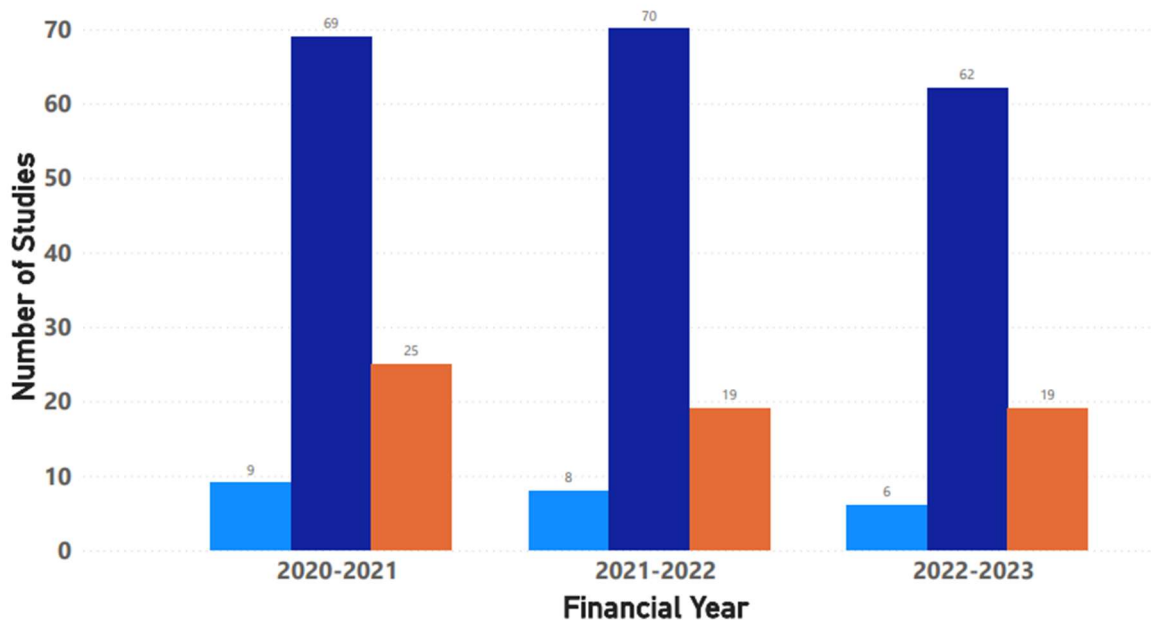


Fig 9

# 4. Research, Innovation and Knowledge Finance and Income

## 1. Funding

On an annual basis, NHS Fife RIK Department receives an allocation from the Chief Scientist Office (CSO) to support clinical research activity and general infrastructure. Normally this allocation would be calculated using activity-based measures, however, due to the exceptional circumstances caused by the COVID-19 pandemic this approach was not being used over the period of this Annual Report as the pandemic greatly reduced clinical research activity.

CSO also provide funding for the Health Innovation Southeast Scotland (HISES) Innovation Hub, of which NHS Fife is a member Board, through NHS Lothian as the lead Board. HISES, along with the other two Innovation Hubs, in the West and the North. These have been established with the purpose of delivering the “Government’s vision to utilise the innovation process to deliver a healthier and wealthier nation for the future.”

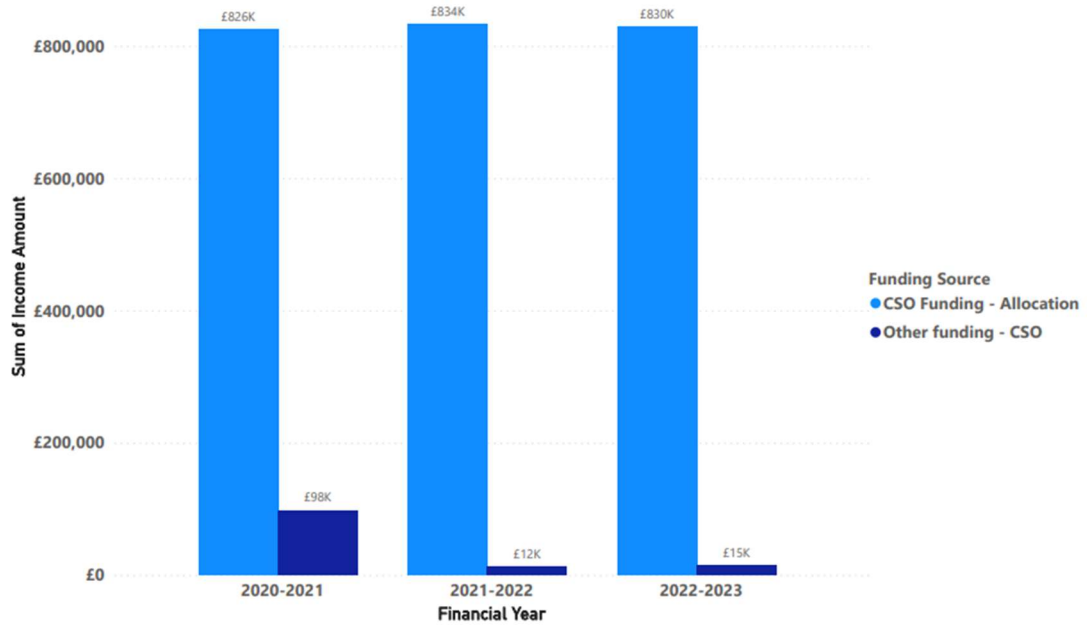
As well as CSO funding, NHS Fife also receives Network funding to further clinical research in areas such as Cancer, Dementia, Diabetes, & Stroke, which is provided through NHS Tayside as the nodal Health Board, Lothian and the University of Dundee.

The following graphs show total funding provided by CSO & other contributors over the previous 3 financial years, from 2020/2021 to 2022/2023. However, the key points to note are:

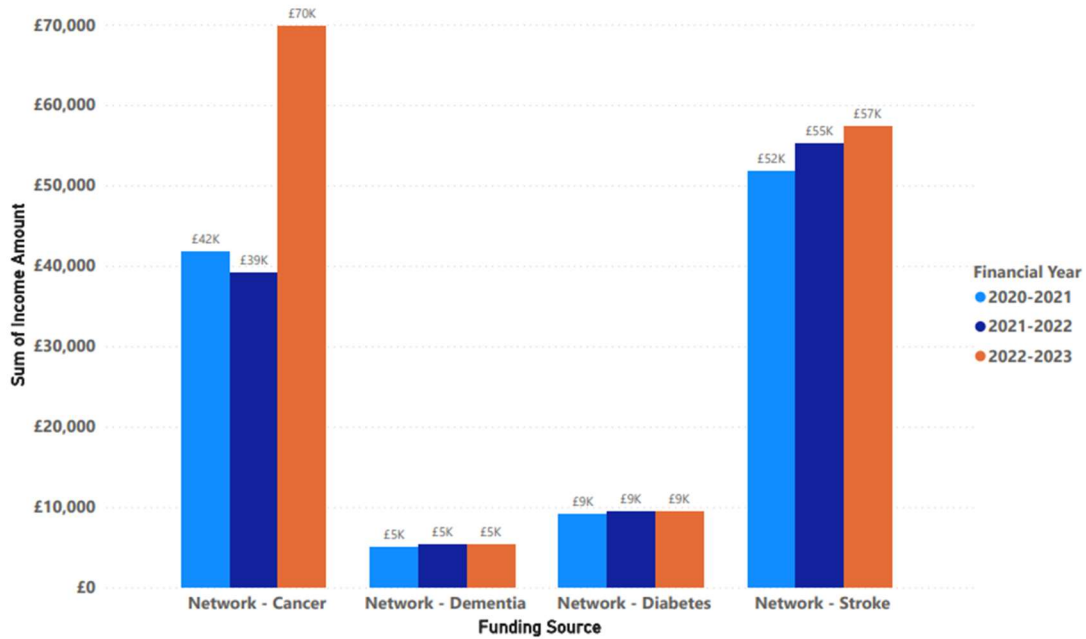
- Initial CSO funding increased by £8,000 between 2020/2021 and 2021/2022 from £826,000 to £834,000 in 2021/2022, then decreased again by £4,000 in 2022/2023 to £830,000.
- There was also an additional £15,000 provided by CSO in 2022/2023 to cover a 7.5% uplift in pay awards, bringing our total CSO allocation up to £845,000.
- Funding received from the Stroke, Diabetes, & Dementia Networks have remained stable over the past 3 years, with minimum variation.
- The Cancer Network is the exception as a new agreement was put in place allowing a new Band 4 nurse to be employed at 1.0wte (working time equivalent). In addition, a new part-time Breast Cancer Research Nurse post was also funded by the Cancer Network at 0.6wte (working time equivalent).
- Funding received from HISES has increased over the past 3 financial years, from £59,175 in 2020/2021 to £69,875 in 2022/23. A total increase in funding of £10,700 from 2020/2021 to 2022/2023.

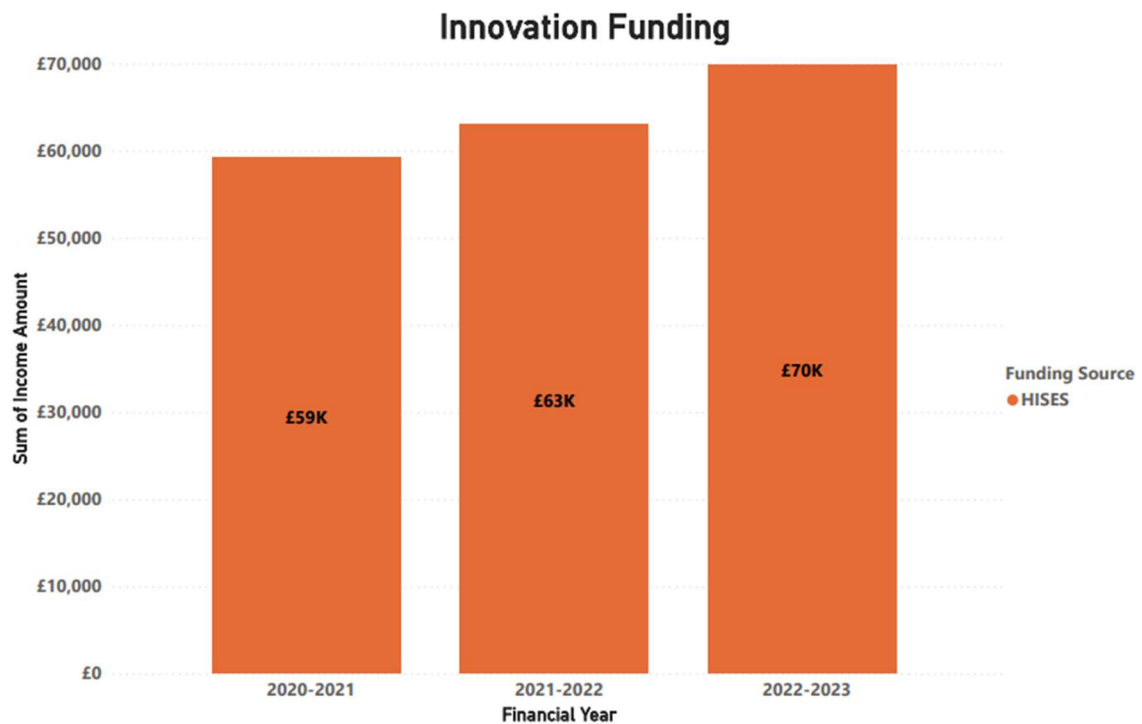


## CSO Funding



## NRS Network Funding





## 2. Income

### 2.1 Commercial Income

Commercial income for 2022/2023 was £107,000, an increase of £30,000 from 2021/2022 and is a positive sign that commercial income will approach & potentially surpass pre-covid levels in future financial years, with pre-covid commercial studies such as the Investigative Clinical Study for Diabetes Rev A (Rev A) within the Diabetes speciality restarting and other new commercial studies such as Pro-Scalp and Elevate, which are both observational studies and the continuation of Post -market Clinical follow-up study of the Mobile Link Hip cup system (Mobile Link), Alopecia & Attune.

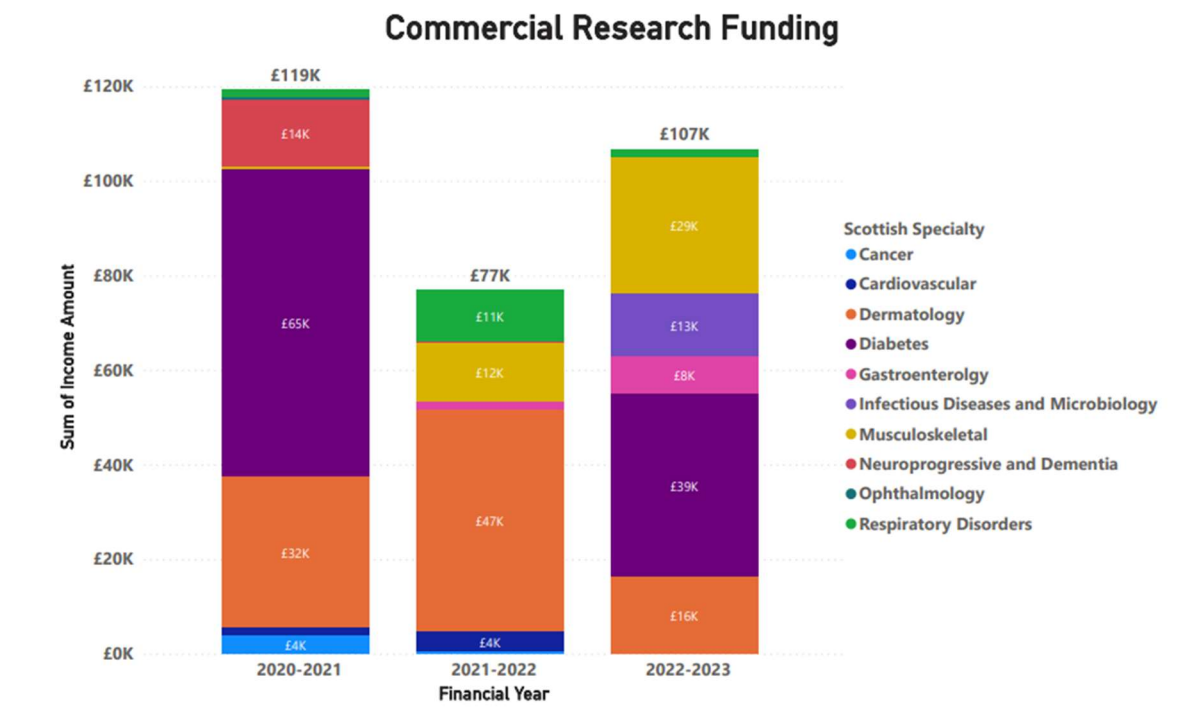
The key areas for commercial growth in 2022/2023 relate to studies within the Musculoskeletal, Diabetes, Infectious Diseases and Microbiology areas, with key commercial studies in the year being Mobile Link, PHADE, ENSEMBLE 2 and ATTUNE generating £81,000 income between them.

On the other hand, income from Dermatology studies is down 66%, from £47,000 in 2021/2022 to £16,000 in 2022/2023 which can mostly be attributed to the completion of M19-850 where £20,000 income was generated and a slow down in commercial activity in Dermatology post pandemic.

The below graph provides a breakdown of the commercial income generated over the previous 3 financial years, mostly looking at the COVID-19 pandemic period, where commercial income generally fluctuated downwards due to a shift in resource to Urgent Public Health studies and study visits not occurring due to lockdown, which can be seen with the Diabetes speciality, where £65,000 was generated from Rev A, which was

closed during the COVID-19 pandemic and has only recently restarted recruiting participants again in the 2023/2024 financial year.

As an additional point to note, the £65,000 income generated by Rev A in 2020/2021 relates to recruitment conducted in the 2019/2020 financial year, where the last participants were recruited in March 2020 before recruitment was suspended due to COVID-19 and is not income generated due to work conducted during the COVID-19 pandemic period.



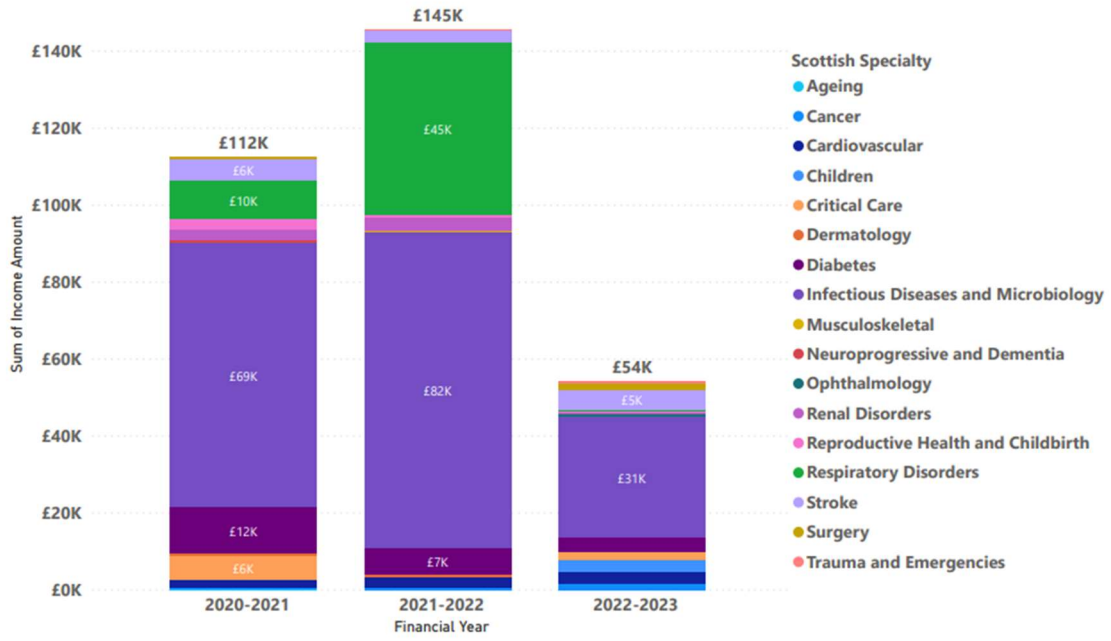
## 2.2 Non-Commercial Income

With Respiratory, Infectious Diseases and Microbiology studies no longer being at the front of non-commercial research post the pandemic, non-commercial income in 2022/2023 had fallen 63% due to a combination of a slowing of recruitment in Covid specific studies such as Recovery in addition to Stop Covid, Isaric and the respiratory study ECBS either completing or being fully invoiced for in 2021/2022.

Overall, in relation to Respiratory, Infectious Diseases and Microbiology studies, income in Respiratory was down by £44,000, Infectious Diseases and Microbiology income was down by £51,000.

Going forward into 2023/2024, non-commercial income will be expected to surpass £54,000 with two key studies being the Siren 2.0 and Cardiology study Orion 4.

## Non-Commercial Research Funding



## 5. Innovation



**Neil Mitchell**  
NHS Fife Innovation Manager

NHS Fife is a member of the Health Innovation South East Scotland (HISES) Innovation Hub, one of the three Innovation Hubs, established by the Chief Scientist Office. HISES is a collaboration of three NHS Boards - NHS Fife, Lothian and Borders, with NHS Lothian taking the role of lead host board. HISES forms part of a national network created to deliver the Government's vision to utilise Innovation to deliver a healthier and wealthier nation for the future. The majority of the Innovation activity that RIK has supported over the period of this Annual Report has been focused on HISES hosted Small Business Research Initiatives (SBRI's). NHS Fife has contributed to the review, discussion and approval of projects to be hosted by HISES.

The NHS Fife Innovation team has grown over 2022-2023 with the appointment of Neil Mitchell, Innovation Manager in April 2022 and the appointment of Dr Susanna Galea-Singer as Clinical Innovation Champion in March 2022. Southeast Clinical Innovation Fellow and NHS Fife Lead Advanced Physiotherapist Practitioner, Joyce Henderson, is an associate member of the Innovation team. The Innovation team is led by Professor Frances Quirk, Innovation Champion and Assistant Director of RIK.

NHS Fife supported Phase I of the Mental Health SBRI which focussed on the development of innovative solutions in several populations including young person's mental health, hard to reach populations, patient centred care pathways, treatment resistant conditions and prioritisation of backlog. Two companies were successful in being granted funding and worked with HISES. NHS Fife provided stakeholder input to the successful companies selected to this challenge with NHS Fife Child and Adolescent Mental Health Service (CAMHS) staff providing input and Digital and Information (D&I) staff providing guidance on implementation.

Other SBRI's supported by HISES, with input from NHS Fife, included:

- **Remote HbA1c Monitoring for Diabetes** – developing innovative solutions that address person-centered care, improve care pathway and optimise service delivery in HbA1c testing.

- **Multi-Morbidity** – development of data-driven solutions that can improve and personalise care plans for patients with multimorbidity. This will use analytical models in the clinical system that could assist with the risk assessment of patients.
- **Hip Fractures** – developing a system using routinely collected health data and data-analytic techniques to improve the outcomes for patients with hip fractures. One company has successfully launched into Phase II in August 2022
- **Delayed Discharge SBRI** – development of innovative technology- based solution to link statutory services to 3rd sector organisation providing services in the community.

NHS Fife is also supportive of Innovation nationally through membership of National Consortia. NHS Fife staff currently contribute to 3 National Consortia: the Dermatology Artificial Intelligence (AI) Consortium, the Eye Health Consortium and the Drug Deaths Consortium. The Dermatology AI consortium is seeking to deliver the vision of '25 by 25' – skin cancer diagnosis within 25 minutes by 2025, through the use of AI. The Eye Health Challenge looking to develop innovative technology to enable remote home vision testing for Glaucoma launched in July 2022 with 3 phase 1 projects awarded.

NHS Fife was selected in November 2022 to lead the UK wide Reducing Drug Deaths Innovation Challenge, on behalf of HISES, managing the £6 million Innovation Challenge. This Challenge will see 12 projects from across the UK take forward disruptive, innovative approaches to help reduce fatal drug overdoses. This Challenge is a first in that it is run across all 4 UK nations, with funding from both the Scottish and UK Governments. The funded projects will range from developing artificial intelligence (AI) technologies to detect overdoses, to emergency systems using drone technology to deliver antidotes, and wearable technologies such as smart watches or breathing monitors to detect overdoses and alert healthcare professionals, family or members of the community to the need to intervene. As well as leading the oversight for the Challenge Nationally, NHS Fife, as part of HISES, will act as Test Bed to any successful applications to the Challenge.

Joyce Henderson, Clinical Innovation Fellow and Advanced Physiotherapy Practitioner was awarded a highly competitive Innovation Fellowship which commenced in September 2022. The Fellowship will focus on Artificial Intelligence (AI) assisted screening of Developmental Dysplasia of the Hip (DDH). In order to be successful in collecting and analysing the large volume of data in this project, Joyce was successful in an application for funding from the Fife Health Charity to fund a Data Manager, who will assist her in data collection in clinic as well as analysis of data and document management throughout the project.

Graham Tydeman, Consultant Obstetrician and Gynecologist, now semi-retired, has produced several innovations over his tenure at NHS Fife. One of these is the cervical Cerclage, which has been used to demonstrate the differences in procedures between different experts in the field. This research aims to develop consistent methods of practice in the field and has been published in the American Journal of Obstetrics and Gynecology (Stirrat et al, 2023 [Cervical cerclage technique: what do experts actually achieve? - American Journal of Obstetrics & Gynecology MFM \(ajogmfm.org\)](#)). Dr Tydeman features in our Clinical Innovator Career Spotlight in Section 6.

Finally, NHS Fife has grown stronger links with partners across Scotland in the Innovation landscape. NHS Fife Innovation and Digital and Information have forged closer links allowing the rapid review of innovation proposals providing early stakeholder advice and guidance for new projects and proposals. NHS Fife and the University of St Andrews Innovation have grown closer links, with the MacKenzie Institute for Early Diagnosis facilitating introductions to Innovative companies and links to other institutions. NHS Fife has developed a stronger relationship with InnoScot Health over 2022-2023. InnoScot Health contributes to RIK Operational Group and the HISES Network Group and Oversight Committee. InnoScot Health has provided valuable input into 3 projects running in NHS Fife, including the Innovation Fellowship project, contributing to regulatory and intellectual property (IP) advice, project planning and agreements required for the success of the project.



## 6. Clinical Innovator Career Spotlight



**Dr Graham Tydeman**  
NHS Fife Consultant Obstetrician and Gynaecologist  
(semi-retired).

### 1. When did you first become interested in Innovation?

I became interested in innovation as a child, when I modified my bike to make it go faster. My dad was a woodwork and art teacher, and my mother was a nurse and teacher and therefore grew up with a 'we can do anything attitude'. I was always taught to try something first before you called someone in to do it. In terms of medical innovation, this started when I was a junior registrar – a want, and need, to change things for the better. If something didn't work efficiently or effectively, I would think about how it might be changed for the better.

### 2. What drives you to innovate or be involved in Innovation?

Problem solving and creativity. I always like to make things or try something new, and I have always been a creative person, involved in art and sculpting. I had, at one point, given up medicine to become a full-time sculptor after being commissioned for a few larger pieces. Back in clinic or theatre, innovations came when there was a need for something that wasn't there or currently didn't exist.

### 3. What's your Ambition?

My ambition is to continue to live a fulfilling and enjoyable life, with a lot of fun, for as long as possible. In order to have a satisfying life I enjoy doing things that make a difference. Art and sculpture can bring joy to people's lives, but I gave that up to focus on medicine as that is where I knew I could make more of a difference.

### 4. What is your Career Highlight?

Meeting the 10 sets of triplets I had delivered over my career. At my retirement, the team I was part of organised a lunch and invited some of the families I had worked with over my career. This included families who had had traumatic births, or lost babies, as well as the multiple sets of triplets I had delivered in the last 10 yrs with ages ranging from 10 years to 3 months. The team had created a great environment, and we were able to keep in touch with the families which meant so much. It's very easy to get wrapped up in your work but finding a way to be nice to people and showing compassion and empathy, is something I am most proud of.

## **5. What does the Future look like for you?**

As I am semi-retired my future is more about working as long as possible, while I am still able to be useful and make a difference. Outside of work, my future will be my passions; sailing, paragliding, sculpting/ tinkering in my shed.

## **6. What advice would you give to Future Innovators?**

My advice for future innovators would be to surround yourself with a great team. You can't do great things on your own. You need a team you can laugh with, and who will do the tasks you don't have the time or skills to achieve. Fife NHS R&D along with colleagues from Guys and St Thomas' have been the perfect groups to work with over the years.

## 7. Library and Knowledge Services



Alan Mill, Library Assistant  
Hannah Colston, Librarian  
Wendy Haynes, Librarian

The Library & Knowledge Service (LKS) continued to support staff and students by providing access to both online and physical resources, answering enquiries, carrying out literature reviews, and delivering user education sessions. The lifting of social distancing restrictions has enabled library spaces to be used at full capacity once again.

Our Library Services Co-Ordinator Marie Smith retired at the end of 2022. The recruitment process for a revised role is currently underway. The remaining staff are making extra efforts to maintain services during this interim period. We look forward to 2023-24 and the impetus and ideas that a new manager will bring. Following continued recovery from the pandemic, we anticipate increased demand for core library service provision, along with progress in line with our strategic priorities.

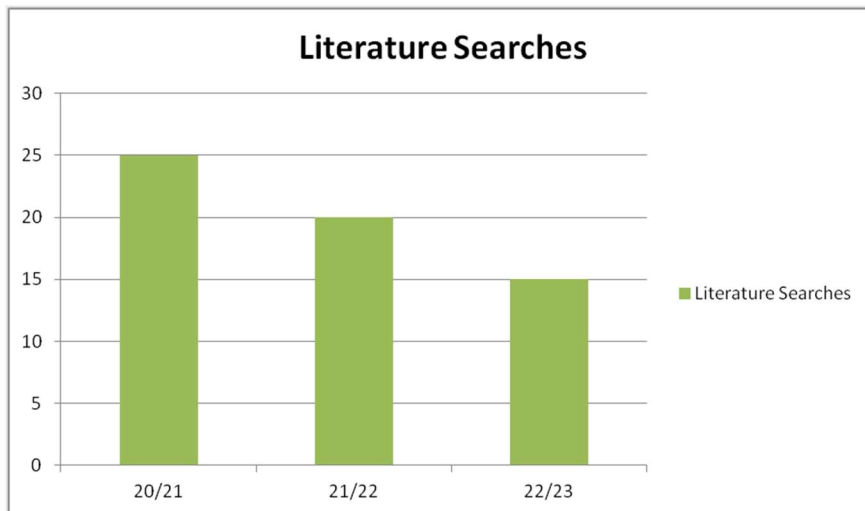
### Library Membership

Figures for membership cannot be directly compared with last year because NHS Education Scotland (NES) introduced a new 'single sign-on' method of registering for library resources. This is designed to simplify access to subscription content for NHS staff, by removing the need for separate Athens authentication. It was introduced in September 2022, but existing library members change over only when needing to access online resources or when their account renewed, so this is a continuing process. There have been some issues with duplicate accounts, or with expired accounts needing to be replaced. It is therefore thought that the much-increased figure of 477 NHS Fife users created during 2022-23 should be treated with caution.

New library accounts are now automatically created when a member of staff accesses Knowledge Network resources for the first time, using information connected with their NHS email account. Unfortunately, job title details are not transferred, so we can no longer produce a reliable breakdown of library accounts by job group, as we have done in previous years.

NES have reported some positive effects of the new system, including increased use of subscription database resources across all NHS Scotland boards.

## Literature searches



Demand for literature searches during 2022-23 were lower than previous years, perhaps due to the ongoing effects of the pandemic, with only 15 completed. Users of the LKS request literature searches for a variety of reasons. Some of which relate to direct patient care, reviewing medical guidelines and pathways, improvement reviews and general research around a topic. This year requested searches have included, inequalities and access to cancer screening programmes, the benefits of nurse led clinics and how to identify priority patients for medication review. Another substantial area of work included extensive engagement with the High Risk Pain Medicines programme, providing evidence to support progress in this important initiative. Feedback provided by service users illustrates the many ways that the information we find for them brings benefits to health service provision in Fife:

## Library resource use

Activity	Numbers/data/quantity
<b>Library Bookstock:</b>	
Total number of books in stock	3,469
Books added to stock	169
<b>Book Loans:</b>	
Book loans from own stock to NHS Fife staff	164
Book loans from own stock to external Boards' patrons	58
Book loans to NHS Fife staff supplied by external NHSS libraries	73
<b>Resource Sharing Requests:</b>	
Journal articles requested from the British Library or CLA Licence Plus	66
Books borrowed from the British Library	3

## Other core activities

Activity	Numbers/data/quantity
<b>Current Awareness Bulletin – Public Health</b>	produced monthly
<b>Local Authors Bulletin</b>	produced monthly
<b>Information Skills Training</b>	1 group session 6 individual sessions
<b>Library Outreach</b>	1 event with display

## Strategic priorities

Our strategic priorities are useful in focusing our efforts beyond LKS core activities and looking to further develop our services.

## Print Journal Collection

The collection has been recorded in the catalogue and evaluated. Any further action will depend on use of the library at Stratheden where the journals are located, so will be rolled into the strategy priority for Stratheden below.

### **Stratheden Library**

Proposals to move the library to alternative accommodation have been withdrawn. The book collection at Stratheden is being reorganised and improved, and books can now be requested by staff at other boards.

### **Queen Margaret Hospital Library**

The book collection has been updated, and work has been done to focus on the specialist areas relevant to QMH.

### **Increased Student Numbers**

The anticipated increase in student numbers from University of St Andrews will stretch the capacity of the library. Redundant equipment has been removed and better use is being made of limited space.

### **Right Decision Service**

LKS staff have been familiarised with the Right Decision Service (RDS) and are ready to participate in loading NHS Fife pathways and guidelines on to the service, if capacity permits. The RDS is yet to be confirmed as the recommended platform for NHS Fife, but we hope to be involved in implementation during 2023-24.

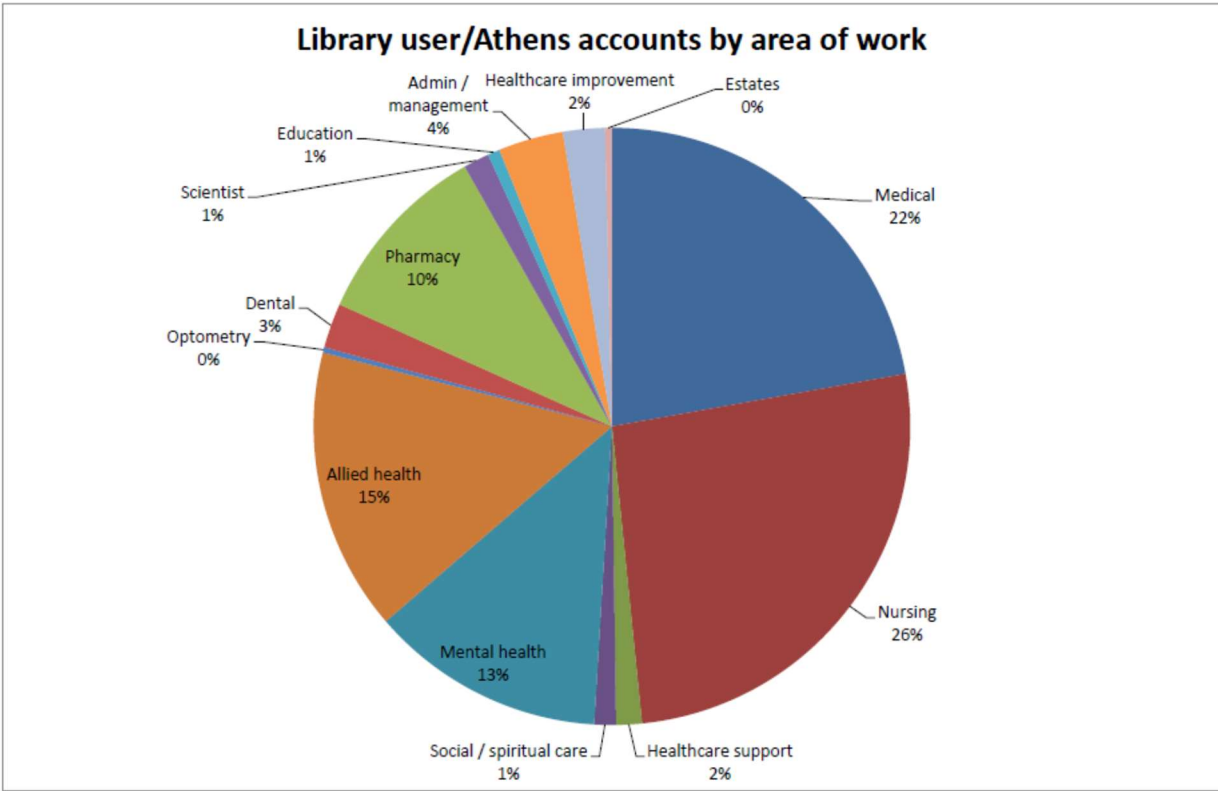
### **LKS Promotion**

Promotional efforts have been focused mainly on StaffLink. We also joined with representatives from BMJ to promote the Best Practice app. Following lifting of social distancing restrictions, we plan more in-person events in 2023-24.

### **Joint Research Office**

LKS staff attended the Inaugural NHS Fife and University of St Andrews Joint Research Symposium in October 2022 to make contact with researchers in both organisation's and to raise awareness of LKS and the support we offer to the research process.

**NHS Fife Library & Knowledge Service - Core Business Activity**



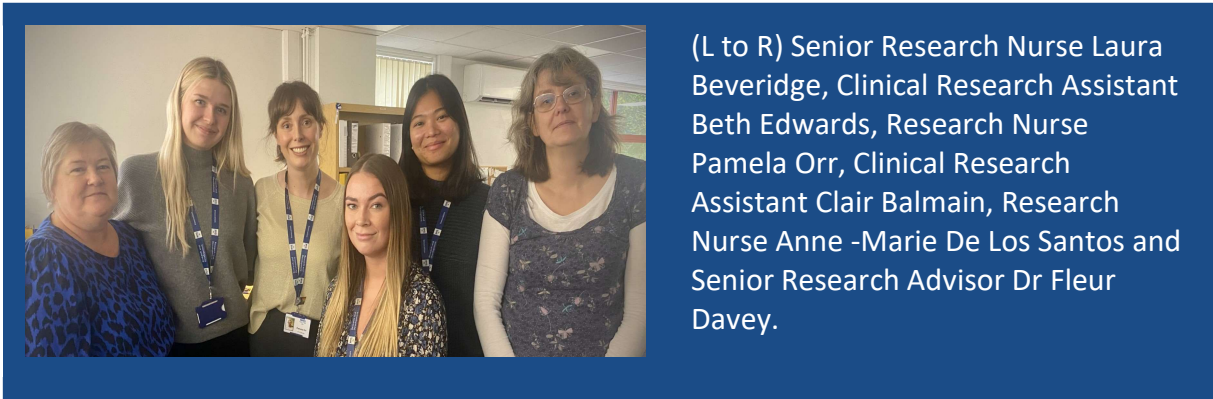


# 8. Research, Innovation and Knowledge

## Clinical Research Support

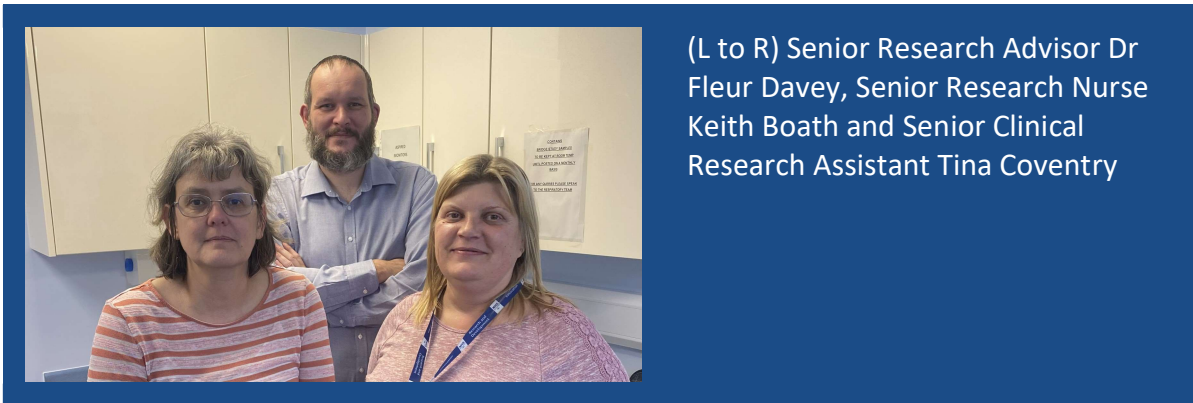
### 8.1 R&D Nursing

The Clinical Research Nursing Team operates within the R&D offices at the Queen Margaret Hospital and the Clinical Research Facility at the Victoria Hospital. Both sites offer clinical facilities with office space for the nursing and R&D Approvals, Quality and Performance and administrative support staff. Together they provide a comprehensive and efficient service and specialist advice to investigators and researchers to conduct their clinical research projects safely, efficiently and to the highest standards.



The clinical team is led by Lead Nurse Karen Gray and supported by a team of 18 research nurses. To enable the nursing team to focus on providing the best quality of service for studies and to offer this service across the spectrum of clinical specialties, they are supported by 2 Clinical Research Practitioners, 5 Clinical Research Assistants and an Administrative Support Team.

### Generic Team



## Spotlight on Generic Team

Clinical Research Staff: Senior Research Nurse Keith Boath, Senior Research Nurse Fleur Davey, and Senior Clinical Research Assistant Christina Coventry

Principal Investigators: Dr Rajendra Raman (Consultant in Emergency Medicine), Dr Ian Leeuwenberg (Consultant Anaesthetist), Mr Feras Al Jafaari (Consultant Urologist), Dr Jagdeep Singh (Consultant Cardiologist)

Recruiting studies – ASPIRED, TARGET Type-2, DaSHED, SEED

Follow-up studies – BOSS, SIMS, UKIVAS, SERA

Studies in set-up – PREMISE

## Summary of activity

Much of the Generic team activity this past year has been around building and developing relationships with the clinical team in the Emergency Department at the Victoria Hospital. This has helped us successfully open the ASPIRED clinical trial and by 31st March 2023 we had recruited above our set target and on several occasions been commended by the trial centre as the top recruiting site in the UK and have remained the 3rd highest recruiting site overall and the best recruiting District General Hospital.

As well as ASPIRED we have opened and completed two intensive observational studies SEED and DaSHED in the Emergency Department. We managed a combined recruitment of approximately 400 participants in 28 days into the studies.

In Cardiology we set up and opened a study looking at Type 2 Myocardial Infarctions and are working closely with the cardiology research team in NHS Lothian to achieve recruitment.

A paediatric anaesthetic CTIMP study was also recruiting in this period, looking at sedation for anxious children in the pre-operative period.

Currently in Set-up is a large NIHR funded Urology study looking at changing the surgical procedures routinely offered to patients with enlarged prostates. Looking at our current standard of care in comparison with one of four standard procedures offered in the trial. Some of the newer surgical procedures are only available in Scotland at NHS Fife and it's important to find out the best and most effective method for treating this patient group.

## Highlights

We have received positive feedback from many participants in the ASPIRED study as they were receiving different care from standard in the form of the 14-day ambulatory ECG monitor and on several occasions, this picked up abnormalities which would not have been picked up and actioned as quickly if the patients had not been in the study. New treatments for these patients were initiated quickly preventing the possibility of developing new health problems related to their abnormal cardiac rhythms.

## Achievements

We have managed to successfully engage with the clinical team in the Emergency Department and have brought on board new investigators and have supported some doctors to go through the associate PI scheme which will prepare them to be able to take on Principle Investigator roles in the future.

Keith continues to deliver the Introduction to GCP course to staff wishing to become involved in clinical research.

## Motivation

As a team we have been motivated to become more involved in Emergency medicine research as we are seeing first-hand the challenges the Emergency Department faces every day, and it is a great motivator for us to be able to provide opportunities to this patient population. This has been a key factor in why it was important for us to develop a reciprocal working relationship with the ED and why we are always happy to assist in the clinical environment whilst in the department from assisting in personal care, taking bloods to pushing trolleys and beds around the hospital to help with the care and flow of patients. This collaborative working relationship is key to providing excellent patient care and opportunities within an acute and very busy clinical environment.

## Respiratory Team



(L to R) Research Nurse Anne Marie De Los Santos, Senior Research Nurse Julie Penman, and Clinical Research Assistant Emma Simpson.

Principal Investigators: Dr Devesh Dhasmana (Respiratory Consultant), Dr Ian Fairbairn (Respiratory Consultant), Dr Simon Finch (Respiratory Consultant), Dr Jo Bowden (Palliative Care Consultant) Derek Sloan (Infectious Disease Consultant)

Recruiting studies – MucAct COPD, PNEUMO, RECOVERY, PROSPECT, TEMPESTAS, MABEL

Follow-up studies – ENSEMBLE2

Studies in set-up – BRIDGE & TB-DILI

### Summary of activity

There have been many staffing changes in the respiratory team this year, namely a new Senior Research Nurse in October 2022 and a new Research Nurse in Jan 2023. Despite being a new and progressing team, we still managed to open 2 drug interventional trials and 1 observational trial and maintained good recruitment into our other 2 open trials, in a 5 month period.

The research team work closely with the respiratory clinicians, Respiratory Nurse Specialists and ward nursing staff to deliver a variety of research studies for the patients of Fife. We have a growing portfolio of respiratory studies, currently including COPD, bronchiectasis, COVID-19, influenza, pneumonia and patients undergoing pleural procedures.

### Highlights

Positive feedback from a trial participant who liked the extra support they received. They felt like their contribution was valuable, would definitely take part in research again and would recommend to friends and family to take part in research. This was a welcome reminder of the impact our work can have on others.

## **Achievements**

We have worked hard and are proud to have promoted clinical research and our clinical trials with clinical staff, PIs and Co-investigators, in this short period of time. This has resulted in a high level of engagement and a strong collaboration with the clinical team.

We were also proud to receive 100% compliance in a Fife Quality & Performance team consent audit for the PNEUMO study in February 2023.

## **Motivation**

We have seen first-hand the debilitating impact that respiratory conditions can have on a person's quality of life and we have been fortunate enough to observe the different benefits these treatments can have on our participants, such as increased confidence to leave the house, and improved physical, emotional and mental well-being. We are proud to be part of a team that offer respiratory trials to the Fife population giving them the opportunity to access medications that might otherwise not be available to them and a greater sense of control in managing their long-term conditions.

## **Nurses and Health Professionals of the Future**

As a key NHS clinical department, we actively support clinical placements for student nurses, and observational placements for school pupils and students undertaking further education. All our Senior Research Nurses are trained student practice assessors and supervisors providing a diverse experience for students in training across all disciplines. We support a minimum of 4 student nurses every year and deliver a comprehensive induction programme for both students and new staff, demonstrating our commitment to continuous improvement of our support and training programme.

# 9. Clinical Research Practitioner Career Spotlight

## Introducing our Clinical Research Practitioners

To continue to develop the clinical teams and to fill the gap between registered nurses and research assistants we were delighted to introduce the Clinical Research Practitioner (CRP) role to NHS Fife. Two of only three Clinical Research Practitioners in Scotland, Sophie and Ceara complete the Orthopaedic and Oncology research teams and provide a fantastic support role both clinically and organisationally to their team.

Working alongside nurses and others they deliver safe, ethical and high-quality clinical research care that is transforming treatment and patient care in NHS Fife. Following a period of training they will be registered on the Academy for Healthcare Science accredited register which will improve their professional identity, recognise the valuable role they play and provide a clear path for the career development of CRPs within Clinical Research.



(L to R) Ceara Amos and Sophie Iwanikiw

### 1. When did you first become interested in Research?

**Sophie:** At high school and university, initially through academic research. I studied Psychology so am naturally inquisitive and interested in testing hypotheses to answer research questions, and the relevance this knowledge can have in everyday life. During my degree, I interned with an evolutionary psychologist studying human chemosensory communication in humans which further fuelled my interest.

**Ceara:** Sophie and I have a similar background in Psychology but my interest in research solidified when I started working in an inpatient hospital setting after my Undergraduate degree. I found that there were massive holes in the literature surrounding my specific patient group and I wanted to know more about how best to support those patients. I eventually decided to go back to University to complete a Masters in Psychological Research Methods with the aim of learning skills to be able to carry out my own research for the benefit of my patients.

## 2. What drives you to be involved in Research?

**Sophie:** I find it really rewarding knowing that each day the research I support is adding to our knowledge base, and whether the data supports the effectiveness or efficacy of an investigational drug or intervention or not, it is valuable information. My greatest drive is supporting our lovely patients and knowing that real people's lives and health are being improved through the research. Joining NHS Fife R&D in Jan 2020 and immediately supporting Covid19 trials I was able to see this process in action in a short scale of time, which put research well in perspective for me.

**Ceara:** Like Sophie has said, adding to the knowledge base is an important aspect of our role and it has been one of my main drives from the beginning. I enjoy research and all the information that comes with it but I particularly love how much of a positive impact it can have when it is done well. Improving patient care using evidence-based practice really benefits us all.

## 3. What's your Ambition?

**Sophie:** To continue an exciting and fulfilling career in research, to shape the new role of CRP in NHS Fife, and to broaden my involvement, experience, and leadership within research. I also strive to advocate the CRP profession and grow our numbers and other people's familiarity with the role.

**Ceara:** I would love to see my research published and I am working on this in the background but my main ambition is to create change. I don't want to carry out research for the sake of it. Research should inspire people to take action.

## 4. What is your Career Highlight?

**Sophie:** Definitely gaining my CRP accreditation. Having my research knowledge and experience recognised and backed through accreditation is a fantastic feeling and has opened up my potential as a healthcare practitioner. It is especially exciting to have joined the register during its early stages and be part of the evolving research workforce.

**Ceara:** Probably joining the Orthopaedic Research team. My colleagues are amazing and I wouldn't have managed to do all of the things I have recently without their support and guidance.

## 5. What does the Future look like for you?

**Sophie:** As part of my still fairly new role as CRP, I am growing more involved in safety reporting, patient follow-ups, and in new study set-up. We have a few new studies on the horizon in Oncology, including HER2-RADiCAL, a response-directed interventional cohort study using treatment response following neoadjuvant systemic anti-cancer treatment therapy as a marker for selective therapy reduction for patients with low risk HER2+ early breast cancer, which I am looking forward to helping lead on with set-up. Beyond that, hopefully involvement in many other interesting and worthwhile trials, including different specialities and phases.



**Ceara:** The Clinical Practitioner role is relatively new within Fife so it will be interesting to see how it evolves and how my role within the department changes with it. The Orthopaedic team have just opened a new study called PANACHE which is one of the first studies that I can consent patients to so that's exciting and we have several more studies planned for the future.

## **6. What advice would you give to future aspiring CRPs?**

**Sophie:** That you have more relevant skills and experience than you may realise, and your job title does not need to have practitioner in it for you to successfully join the register. Also it is never too early to start collecting feedback and reflections as part of the application and of your professional learning. Talking with and including your colleagues early on is really beneficial.

**Ceara:** My suggestions are very similar to Sophie's suggestions. The sooner you start documenting things the better. If you have had some good feedback from your team or a patient then save it somewhere. The same goes for any training you have carried out. Start a word document and add any training you do with the time it took you to complete it. It will save you a lot of time in the end.

# 10. Clinical Researcher Career Spotlight



**Dr Rajendra Raman**  
Consultant in Emergency Medicine

## 1. When did you first become interested in Research?

I've been a keen consumer of medical research since I first started working in Emergency Medicine 14 years ago but have only become involved in conducting research in the last two years. Definitely a newbie!

## 2. What drives you to be involved in Research?

So much of what we do in Emergency Medicine is without a solid evidence base - so many unanswered questions! This and the fact that, in my experience, patients seem really keen to take part in research, and I'm told that research-active Emergency Departments have better outcomes than those which aren't.

## 3. What's your Ambition?

To extend high-quality Emergency Department research to patients presenting with mental health complaints. I would like to see a research drive to explore alternative models of delivering care to this most vulnerable and under-served patient group.

## 4. What is your Career Highlight?

Successfully randomising my first patient out of hours, all by myself, without causing a protocol deviation! Also, contributing to the creation of the first dual clinical/research nursing post in my department, and watching our first cohort of Associate PIs complete their programme and go on to be PIs themselves.

## 5. What does the Future look like for you?

More trials, more observational studies - perhaps even setting up one or two of our own? And of course, finding the right acronym for our new ED research group. The leading contender at the moment is **FiRED: Fife Research in the Emergency Department**. Logo suggestions welcome...

## 6. What advice would you give to Future Researchers?

Speak to seasoned researchers and (especially) the Fife R&D team - they are an incredible font of knowledge, and extremely approachable and supportive. Find a mentor with research experience and consider the Associate PI scheme. Don't assume you need a strong academic background to go into research - there is a real drive at the moment to persuade clinicians without prior research experience to start getting involved with studies, so that research is no longer seen as "extra" and instead starts to become part of routine care in our Board.

# 11. Clinical Trials Pharmacy Team



**Pharmacy Team:** Maria Simpson, Senior Pharmacy Technician Clinical Trials and Alison Casey, Seconded as Senior Pharmacist, Clinical Trials until December 2023

## Activity & Highlights:

Continuing to dispense treatment for patients randomised to open studies. We also continue to review and provide pharmacy advice for potential studies.

We have worked with the research teams to open several new CTIMP studies (including TICH-3, ARIEL, FOxTROT2, MAGIC, SOT-01, MucAct), and have processed amendments for the open CTIMP studies in a timely manner.

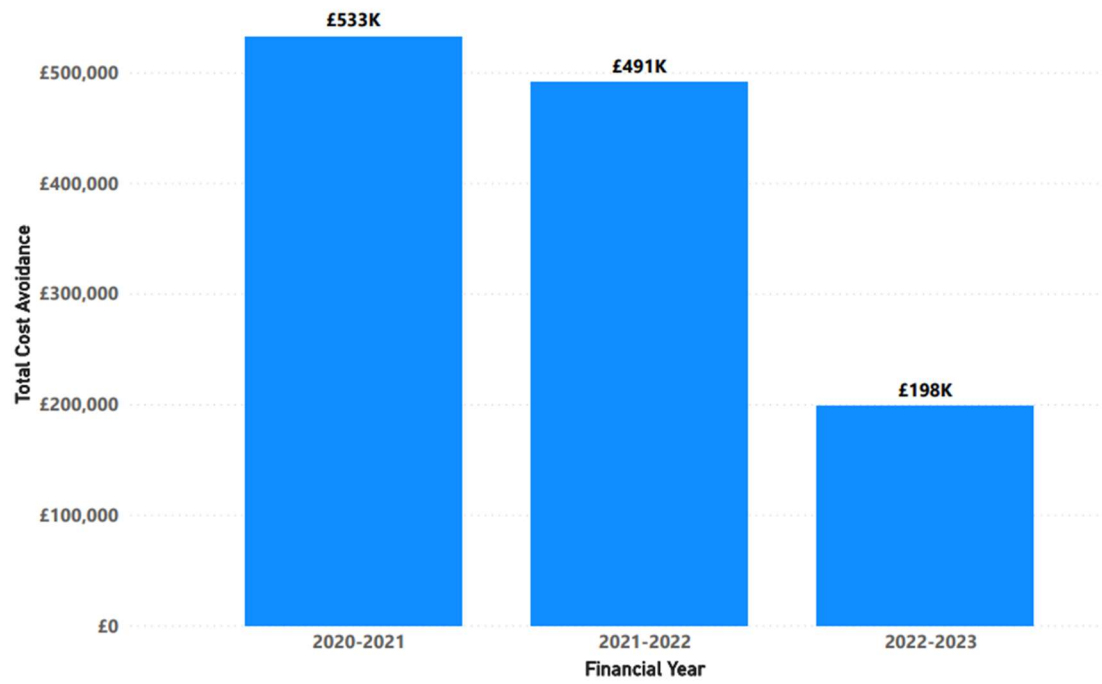
Within pharmacy the clinical trials team is doing a great deal of work to streamline the in house training provided to the wider pharmacy team. The wider pharmacy team are vital to dispensing clinical trial prescriptions at both QMH and VHK.

Motivation: Research is a key element of quality and improvement in healthcare systems and to be a part of that is something that the clinical trials pharmacy team feels very proud of.

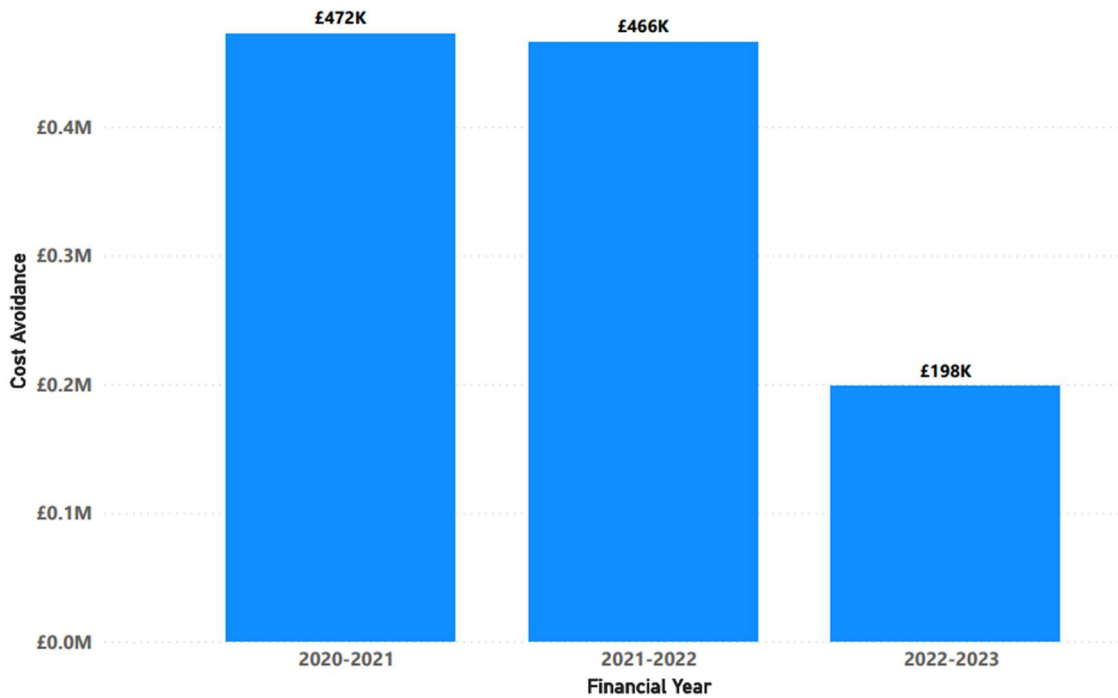
## COST AVOIDANCE 2022-2023

STUDY	COST
MYELOMA XI	£97,183.80
FLAIR	£101,178

## Total Cost Avoidance by Financial Year



## Cost Avoidance for Cancer Studies by Financial Year



# 12. Research Innovation and Knowledge

## RIK Approvals and Support Team

### RIK Approvals Team and Support



*RIK Approvals and Support - From left to right Dr Penny Trotter (R&D Research Coordinator) in post since June 2022, Aileen Yell (Retired R&D Research Coordinator), Roy Halliday (R&D Support Officer), Linzi Wilson, (Approvals Assistant).*

#### RIK Approvals Team

The RIK Approvals Team consisting of Dr Penny Trotter (R&D Research Coordinator Approvals Lead) in post since June 2022, Aileen Yell, R&D Research Coordinator retired in June 2022 currently providing part time support, Linzi Wilson, (Approvals Assistant).

#### Research Approvals

All research conducted within the NHS must have R&D Management Approval in order to ensure that the legal obligations of the Board are met. The Approvals Team ensure that such research studies are reviewed and approved within national timelines. This can include working with researchers and staff to provide advice and assistance for types of approval that are required, reviewing documentation, checking any implications around resource and costing, information governance, risk assessment, arranging contractual reviews, processing Research Passport applications, checking insurance/indemnity for research studies under the Clinical Negligence and Other Risks Indemnity Scheme (CNORIS) and dealing with any queries which arise during the process.

Between April 2022 and March 2023 the number of local management approvals was 40 studies as shown below in Figure 1. Figure 2 shows the NHS Fife Local Management Approvals by Financial Year 2020-2021, 2021-2022 and 2022-2023.

Figure 1 NHS Fife Local Management Approvals by Month – April 2022 – March 2023

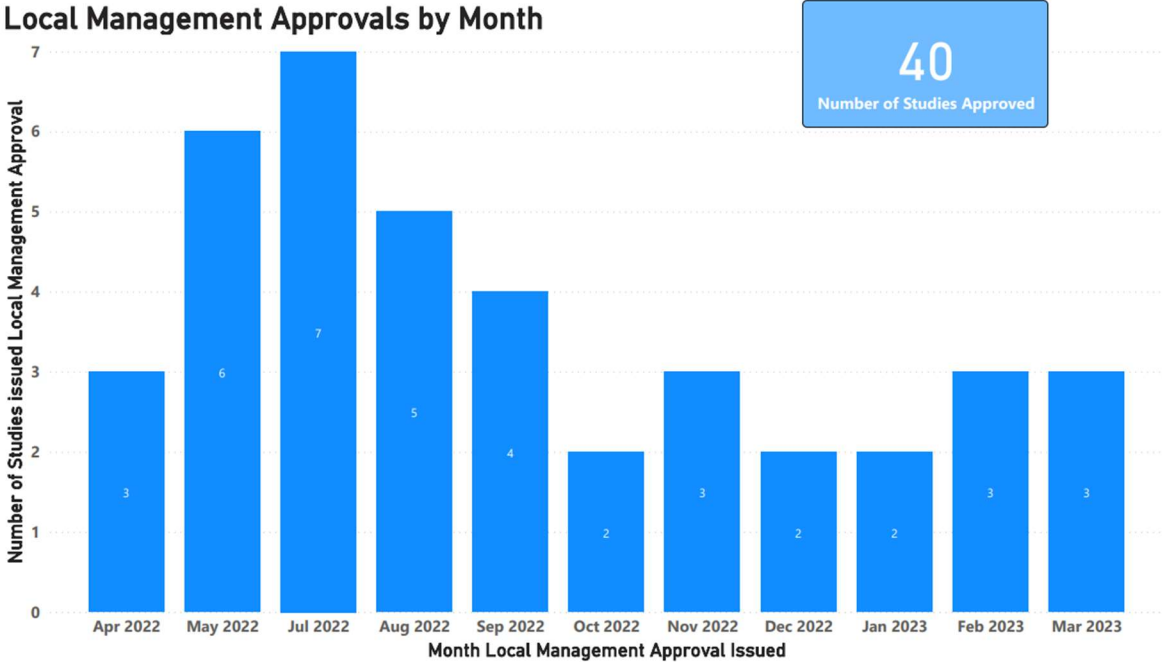
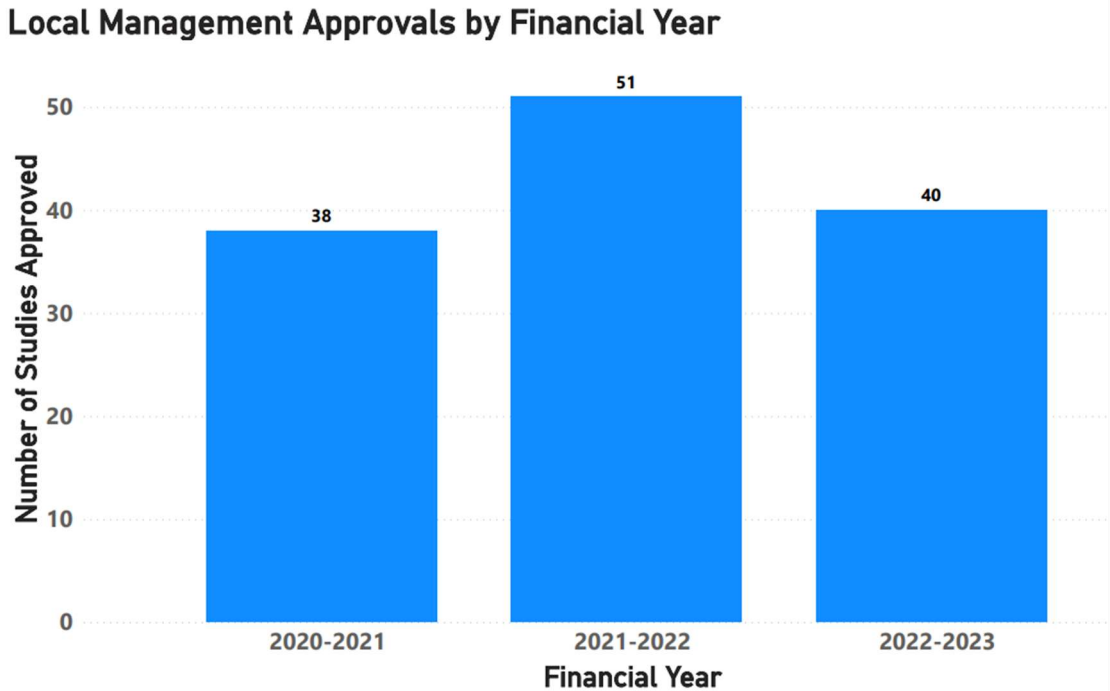


Figure 2 NHS Fife Local Management Approvals by Financial Year



## Research Amendments

The majority of research projects which are approved will be subject to amendments during the period the studies are active or in follow up. The Approvals Team liaise with local study teams to ensure there are no issues around capacity or resources/costings and review and process the amendments timeously.

Between April 2022 and March 2023 the number of study amendments approved was 198 as shown below in Figure 3. Figure 4 shows the NHS Fife approval of amendments by Financial Year 2020-2021, 2021-2022 and 2022-2023.

**Figure 3 NHS Fife Approval of Amendments by Month – April 2022 – March 2023**

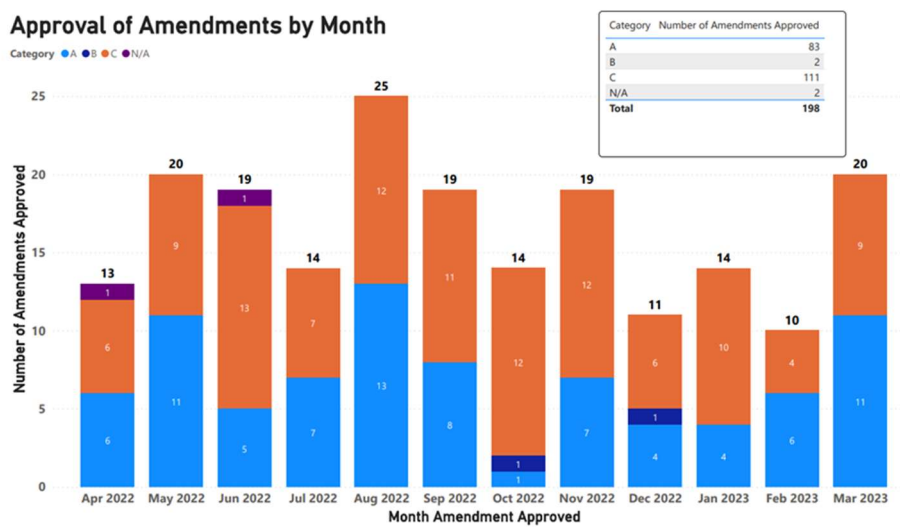
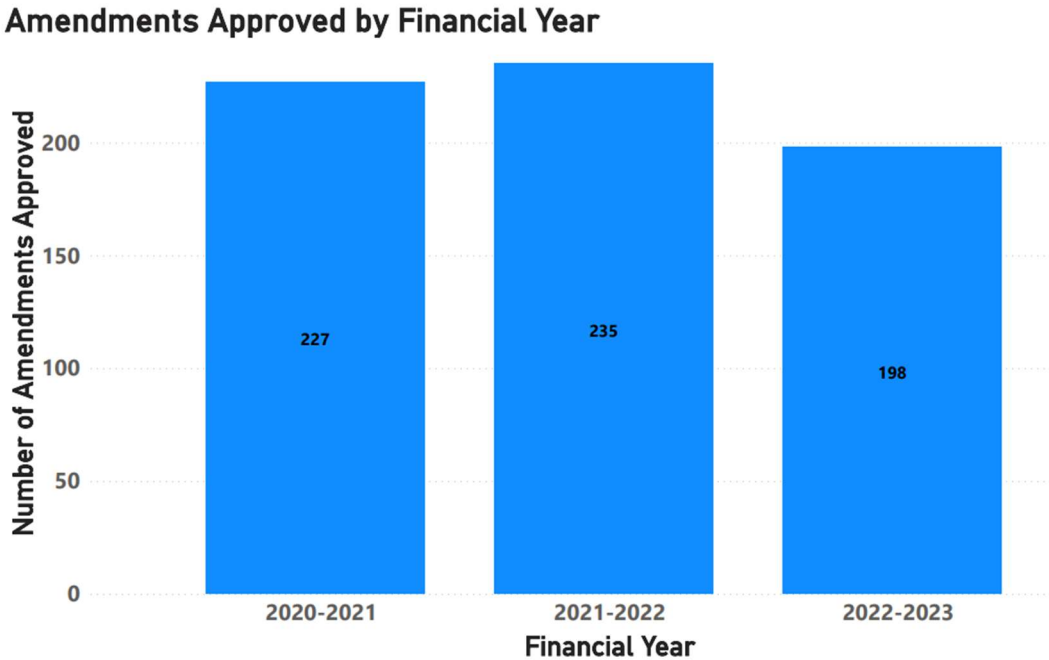




Figure 4 NHS Fife Amendments Approved by Financial Year



RIK Support

The R&D Support Officer Roy Halliday, provides overall administrative support to the RIK Department, including being a primary point of contact for the R&D Team, responding to all types of enquiries, organising and minuting of meetings, regular production of the RIK Bulletin, providing support to the Assistant RIK Director and other team members where required. The R&D Support Officer is the RIK Archivist and is also responsible for processing of feasibility requests, ordering via the e-Procurement Scotland system (PECOS), Scottish Standard Time System (SSTS) and assisting with the delivery of the RIK Education Programme.

# 13. Research, Innovation and Knowledge Quality and Performance



**Julie Aitken** - R&D Quality and Performance Lead Between April 2022 and March 2023 the R&D Quality & Performance Team consisted of Julie Aitken (R&D Quality and Performance Lead) and Penny Trotter (R&D Quality and Performance Assistant until June 2022), Rachel Kuijpers (R&D Quality and Performance Assistant from August 2022) and Isla McBain (R&D Quality and Performance Assistant from Sept 2022).

The R&D Quality & Performance Team are responsible for a number of activities including:

## Management of SOPs and Work Instructions

Standard Operating Procedures (SOPs) and Work Instructions (WIs) are vital to ensure efficient, controlled and uniform conduct across all studies.

The R&D Quality and Performance Team ensure all SOPs and Work Instructions are constructed in accordance with the standard format, regularly reviewed and distributed and made available to staff as appropriate. They work with R&D Department admin and research staff to review the content of these documents and suggest improvements, as well as identifying gaps in the existing suite of documents where new procedures are required. This is an ongoing cycle and feeds into the continuous development of the Department.

Between April 2022 and March 2023 5 SOPs and 5 Work Instructions and their associated forms and templates were reviewed, updated and re-issued.

## Audit

The team are responsible for performing audits across all the clinical research conducted in NHS Fife. This covers a wide range of activities, looking at studies and their activities as well as procedures within the R&D Department itself. The audits are intended not only to ensure compliance to SOPs, WIs and study protocols but to assist those being audited by identifying and addressing issues and helping to improve and streamline study processes.

An Annual Governance Audit is conducted on all studies on the anniversary of them receiving Local Management Approval. Depending on the type of study, these audits cover a range of activities including a review of the study timelines, recruitment figures, safety reporting, implementation of study amendments and reporting of any deviations from the study protocol.

The team conducted a total of 125 Annual Governance Audits between April 2022 and March 2023. A monthly breakdown is shown in Fig1.

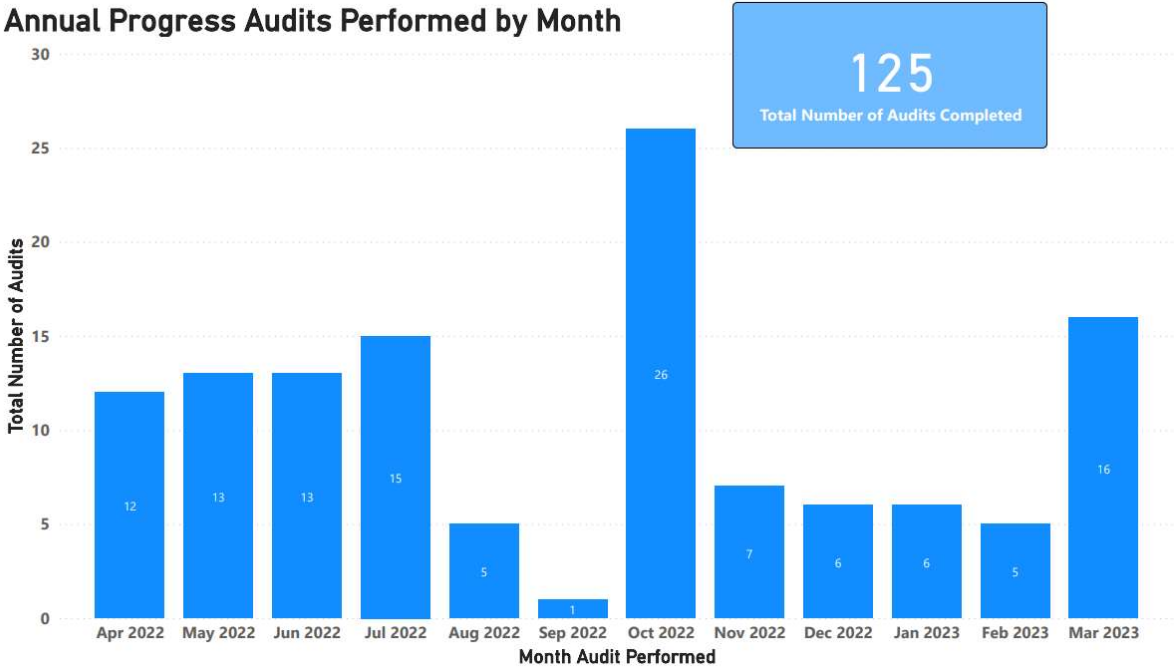


Fig 1

With the expansion of the Quality & Performance Team in 2022 we were able to establish the routine audit of the consent process for all studies, with the number of consent forms audited being determined by the complexity of each individual study. This audit ensures that the consent process complies with the study protocol, the correct documentation is being used and all activities are documented appropriately.

The team conducted a total of 78 Consent Audits performed between Sept 2022 and March 2023. A monthly breakdown is shown in Fig2.

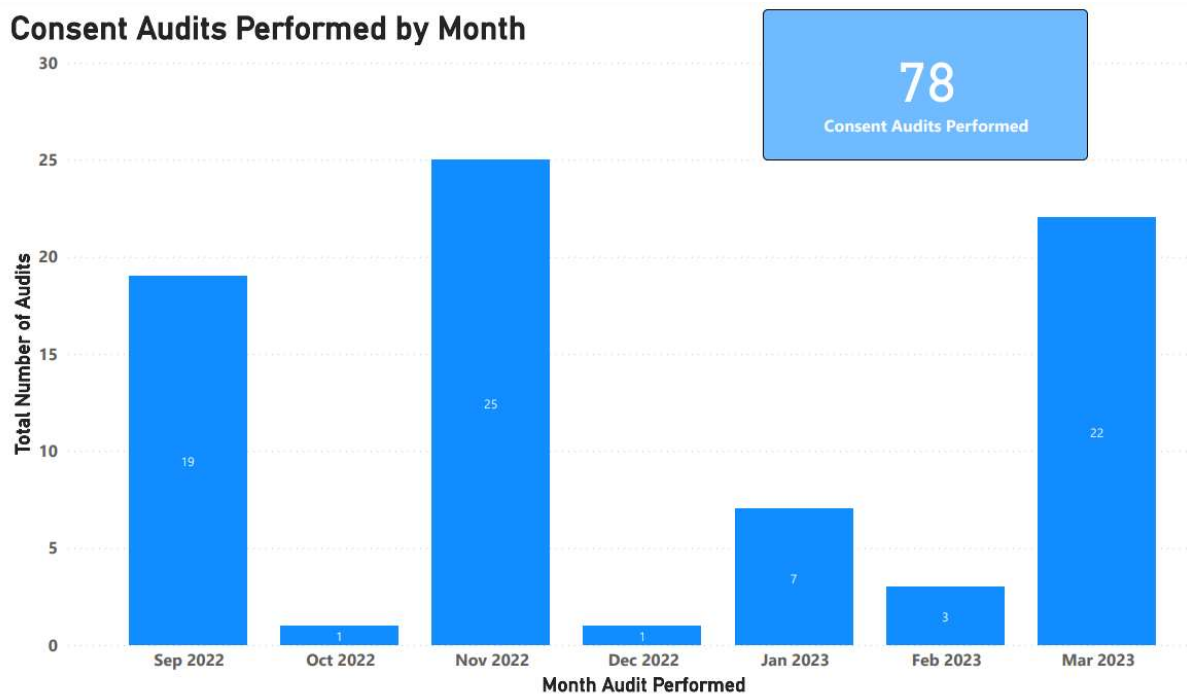


Fig 2

### Tracking Research Activity and Performance

The team liaise with research teams to review study progress and timelines, collate recruitment figures and update local and national databases to track all research activity in NHS Fife.

### Highlights

Over the last year the team have been busy working with the R&D Approvals Team, Clinical Trials Pharmacy Team and R&D Research Teams to further develop our use of EDGE for managing all aspects of the life cycle of a research project. We have also developed a series of reports using the data collected in EDGE to help track the approval and set-up processes and prioritise activities.

The newly established consent audits process has improved the documentation of the process and provides assurance that this important stage of a study is conducted in compliance with the study protocol and RIK Department SOPs and Work Instructions.

# 14. Research, Innovation and Knowledge Education and Training

## Senior Research Advisors Activity 2022/23 - Dr David Chinn and Dr Fleur Davey

During the period April 2022 and 2023, there have been regular requests from NHS Fife and University of St Andrews staff and students to the Fife R&D Senior Research Advisors (SRAs), covering a large range of queries related to aspects of clinical research.

During the period covered by this Annual Report, 51 individuals made a first contact with the Senior Research Advisors and there were a number of brief contacts which were not formally recorded.

Requests for help from Dr David Chinn were received from 23 staff who were seen on 30 separate occasions. The majority of enquiries concerned statistics (16) and study design (10). Requests for help from Dr Fleur Davey were received from 28 staff, just under half of the recorded contacts in this period (13) were from people who ultimately did not require the services of the RIK department but were signposted to other departments such as Innovation, Library services or the Quality Effectiveness team. The remainder of the people who contacted had clinical research related queries.

Most people who contacted the SRAs were NHS Fife staff wishing to incorporate research into their clinical work, additionally there were 5 contacts from people who wanted to complete a higher educational project within NHS Fife, and a small number of clinical academics who wanted to complete clinical research projects. The majority of contacts associated with a Higher Education Institution were from St Andrews University. Requests from NHS Fife staff were from a range of professions including doctors, nurses and allied health professionals although staff from other roles within the organisation also contacted the SRAs.

Individuals looking for advice regarding clinical research were generally asking for help regarding; the varied aspects of study design, how to negotiate the approvals process, how to open a multi-centre study in Fife and the process of applying for NHS Fife sponsorship.

During this period SRAs also met regularly (every 6 weeks) with colleagues from the University of St Andrews Research Governance and School of Medicine departments to discuss projects from the University that were being carried out within NHS Fife.

Additionally, Dr Fleur Davey is a member of the Scottish Health and Social Care Providers Research Leads Network, a group which meets quarterly to promote the building of research capacity and capability in nurses, midwives, allied health professionals, psychologists and pharmacists by contributing to strategies for creating future clinical academic research opportunities.

In addition, Dr Chinn analysed the quantitative results from the 2021/22 survey of the Research Interest, Capacity and Culture in NHS Fife, the results of which were published

in February 2023 in BMC Health Services Research (<https://doi.org/10.1186/s12913-023-09196-y>).

[The research interest, capacity and culture of NHS staff in South East Scotland and changes in attitude to research following the pandemic: a cross-sectional survey | BMC Health Services Research | Full Text \(biomedcentral.com\)](#)

## Education and Training

RIK Education and Training Sessions offered over this period were attended by 13 staff.

Courses delivered were:

Finding the Literature

Writing Up & Getting Your Work Published

An Introduction to Medical Statistics

Making Sense of Numbers

Writing a Research Question & Proposal

Joint Training Delivery

Designing a Poster Workshop – NHS Fife and Edinburgh Clinical Research Facility

In October 2022, R&D Research Coordinator, Dr Penny Trotter delivered the Designing a Poster summary via Zoom, run by Edinburgh Clinical Research Facility in collaboration with Danielle Marlow, Development Coordinator for Edinburgh CRF.

This joint workshop had been previously developed by Dr Penny Trotter and Danielle Marlow via TEAMS meetings during January- March 2022, and first delivered 30 March 2022.

## GCP Training- number of sessions, attendees

During April 2022 to March 2023 seven sessions were delivered by our GCP Trainers for GCP training in person at the following locations as listed in the table below, Two course types delivered Introduction to GCP and GCP Update.

Date	Trainers	Course type	Location	Attendees
13 April 2022	Dr Fleur Davey, Dr Penny Trotter	Introduction to GCP	Queen Margaret Hospital	5
11 May 2022	Karen Gray, Dr Fleur Davey	GCP Update	Queen Margaret Hospital	3
27 May 2022	Dr Fleur Davey, Dr Penny Trotter	Introduction to GCP	St Andrews University	4
15 September 2022	Keith Boath, Zunera Ali, Dr Penny Trotter	Introduction to GCP	Queen Margaret Hospital	5
08 November 2022	Karen Gray, Dr Fleur Davey	GCP Update	Queen Margaret Hospital	4
15 November 2022	Keith Boath, Zunera Ali, Dr Penny Trotter	Introduction to GCP	Queen Margaret Hospital	4
09 Mar 2023	Karen Gray, Dr Fleur Davey	GCP Update	Queen Margaret Hospital	2

# 15. Research, Innovation & Knowledge

## User Experience

### Participant testimonies

We put our study participants at the very center of our delivery of care and value feedback from them to continue to improve and provide the very best care we can.

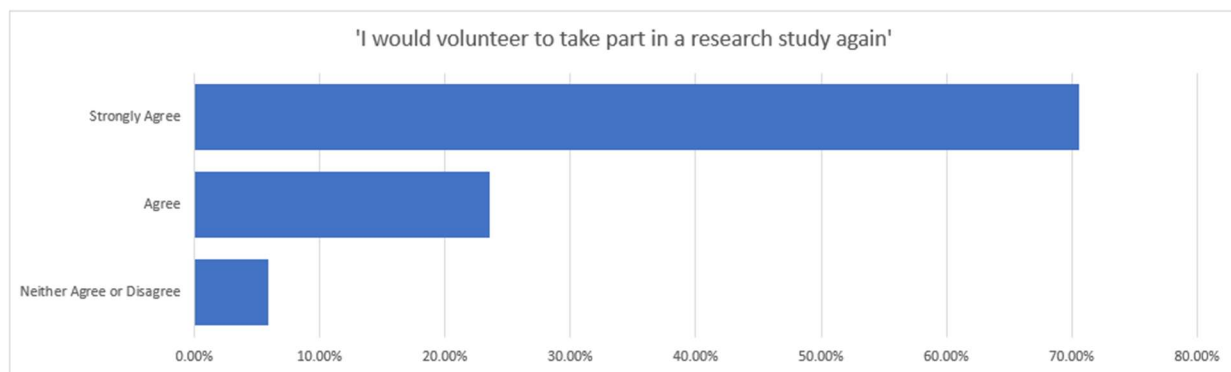
Below are some comments from recent study participants documenting their experiences within some of our studies.

Quote from Jayne Wilson – participant in Add Aspirin

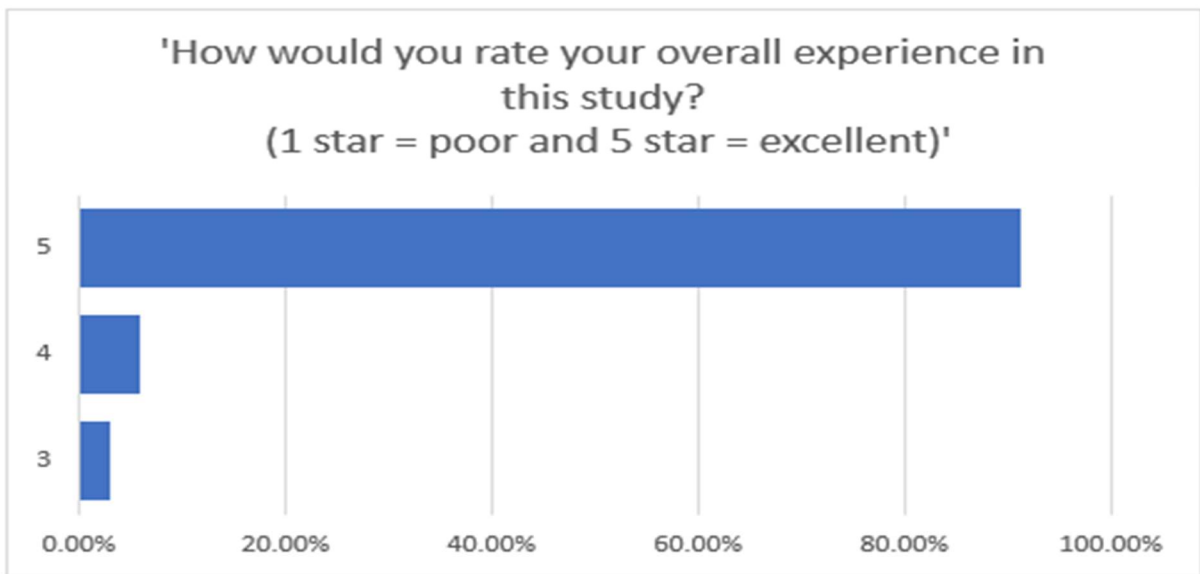
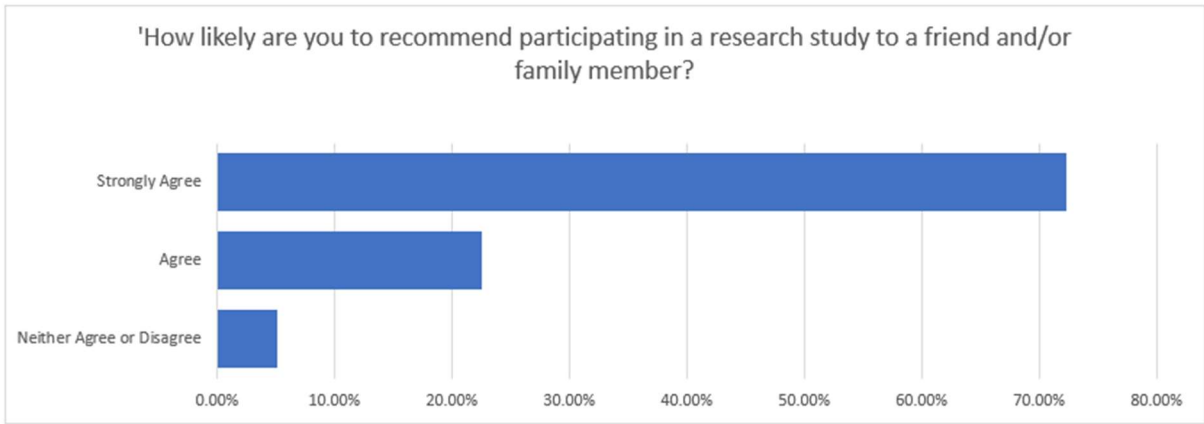
*“Taking part in the trial was easy and it also gave me peace of mind as I was regularly monitored. The research team have all been amazing and at the end of the phone if I’ve ever needed them. Hopefully this research will lead to some positive results and help many people like me in the future.”*

### R&D Participant Experience

Participants who have taken part in a research study are offered the opportunity to complete our Participant Experience Survey. Between April 2022 and March 2023 a total of 34 questionnaires were returned. A summary of the responses are shown below:







# Library and Knowledge Services User Feedback

- evidence-based practice

*Helped to steer towards a certain direction and affirmed what we thought*

- high-quality procedures and guidelines

*Information supplied has now been added to procedure documents*

- influencing change

*Evidence provided enabled the benefits of change to be articulated to stakeholders*

- wider dissemination

*We are hoping to publish a scoping literature review*

## 16. Opportunities and Challenges

In order to ensure the successful implementation of the NHS Fife Research, Innovation and Knowledge Strategy a series of annual 'priorities' have been selected from it, to be progressed. An update on identified priorities / challenges to be taken forward within RIK in 2022 -23 were as follows:

- a. Participation in the development of medical and nursing clinical academic career development in Fife has been continued with discussion and actions about the Associate PI Scheme and Clinical Research Practitioners.
- b. Preparations for a potential inspection by the Medicines and Healthcare products Regulatory Agency have continued.
- c. Details of research-related academic degree programmes, short courses and bursaries, encouraging staff to apply, have been circulated.
- d. Liaising closely with universities and other academic institutions, particularly the University of St Andrews, to establish Research and Innovation projects, programmes and opportunities.
- e. We have continued to support and participate in the NHS Research Scotland (NRS) East Node, establishing joint documentation and actively participating in membership of groups and committees.
- f. We have continued to work with the Health Informatics Centre (HIC), consolidating and adding to the joint Tayside and Fife HIC Database to facilitate service-based evaluations/research. We have developed a relationship with the South East Region data repository and asset, DataLoch.
- g. The infrastructure and processes required for NHS Fife to act as Sponsor for increasingly complex studies is being delivered.
- h. Greater activity and collaboration with academics, pharmaceutical and medical device companies are resulting in increased utilisation of the Clinical Research Facility.

## Challenges for RIK in 2022-23

During 2022-2023 the Research, Innovation and Knowledge teams within NHS Fife continued to adapt to the legacy impact of the COVID-19 pandemic on the clinical research profile, pipeline and priorities and return to pre-COVID-19 ways of working for all areas, as well as maintain recent advances, delivering: research activity focused on recovery; compliance with the research governance framework, monitoring 100% of Fife Sponsored studies; the revision of the RIK Education Programme to accommodate reduced capacity for relevant programmes, the adaptation of Library Services to staff changes and planning for increased medical student numbers.

All teams have continued to perform extremely well in the context of multiple challenges and changes but they have had an impact on productivity, staff wellbeing and ability to progress some initiatives.

## Opportunities for RIK in 2022-23

Being mindful of the outcomes of the Research Capacity and Culture Survey we have looked to ways of supporting protected time for our research active and interested staff, funding and implementing the Clinical Research and Innovation Champion roles has been a significant step in supporting this. The first cohort of Clinical Research and Innovation Champions (Dr's Susanna Galea-Singer, Devesh Dhasmana and Mr Phil Walmsley) have all made substantive contributions to greater connectivity with the University of St Andrews or with the South East Health Innovation Hub and supported peers and colleagues to strengthen research and innovation engagement.

Outcomes from the now published RCCT Survey and interviews will continue to contribute to informing our RIK strategy leading up to 2025.

Dr Fleur Davey, one of our Senior Research Advisors and Senior Research Nurse has been the main driver for the development of the Chief Investigator and Principle Investigator Growth Strategy and this document continues to provide an important platform for the next phase of our capacity and capability growth.

## RIK Strategy priorities (2022-23)

All activities detailed in the prioritised plan of the RIK Strategy for 2022-2023 are ongoing or have been achieved.

## 17. Conclusions

Significant progress continues to be made implementing many aspects of the RIK Strategy, promoting the research and innovation agenda, developing a research and innovation culture and raising the profile of RIK, whilst continuing to build strong alliances with colleagues at HISES, the University of St Andrews and with the wider research, innovation and knowledge communities. Innovation at NHS Fife has developed substantially over 2022/23 with new appointments and an increased profile.

The teams within RIK rose to the continued challenge of the legacy impact of the COVID-19 pandemic and the shift to more usual operations and priorities and the Clinical Research Team, led by Karen Gray, are to be particularly commended on their agility, flexibility and high standards of professionalism in restarting suspended studies, initiating new ones and growing the pipeline in a resource constrained environment, maintaining high quality and adherence to MHRA guidelines throughout.

The NHS Fife Executive Lead for RIK and Assistant RIK Director have ensured a significant raising of the profile of NHS Fife RIK and the promotion of Fife as an important, emerging player in the current, and future Scottish research and innovation agenda.

# 18. Publications

## Research and related activity: publications by NHS Fife staff

Produced by NHS Fife Library and Knowledge Service

Fife.libraries2@nhs.scot; 01592 643355 ext 28790

NHS Fife Library and Knowledge Service

Core databases were searched to retrieve articles where at least one author is a member of staff from NHS Fife. Research activity may have been carried out solely by NHS Fife staff or in collaboration with colleagues from external institutions. Our search was supplemented by information supplied by the Pure team at St Andrew's University.

We searched for records added to the databases Medline, Embase, Psych Info and Cinahl between April 2022-March 2023. There were 168 publications by NHS Fife affiliated staff found. There may be other publications which are not included as they have not been published on the main databases. We included: articles, conference abstracts, letters. Articles contributed to by NHS Fife are read world wide. The metrics show the publications for this year have been accessed online to date more than 110,000 times.

The following is a selection of the most cited papers contributed to by NHS Fife. This means they have been used to aid other published works:

### Selection of Most Cited Publications

Babl, F. E., Herd, D., Borland, M., Kochar, A., Lawton, B., Hort, J., West, A., George, S., Zhang, M., Velusamy, K., [Sullivan, F.](#), Oakley, E., Davidson, A., Hopper, S. M., Cheek, J. A., Berkowitz, R., Hearps, S., Wilson, C. L., Williams, A., ... Paediatric Research in Emergency Departments International Collaborative (PREDICT) (2022) '[Efficacy of prednisolone for Bell palsy in children: a randomized, double-blind, placebo-controlled, multicenter trial.](#)', *Neurology*, (25 Aug). (Cited 16 times)

McCartney, G., McMaster, R., [Popham, F.](#), Dundas, R. and Walsh, D. (2022) '[Is austerity a cause of slower improvements in mortality in high-income countries? A panel analysis](#)', *Social Science & Medicine*, volume 313. (Cited 12 times)

Clement ND, Wickramasinghe NR, Bayram JM, [Hughes K](#), Oag E, Heinz N, Fraser E, Jefferies JG, Dall GF, [Ballantyne A](#) and Jenkins, P.J. (2022) '[Significant deterioration in quality of life and increased frailty in patients waiting more than six months for total hip or knee arthroplasty : a cross-sectional multicentre study.](#)', *Bone & Joint Journal*, 104-B(11), pp.1215-1224. (Cited 9 times)

McPeake J, Henderson P, MacTavish P, Devine H, Daniel M, Lucie P, Bolland L, [Hogg L](#), [MacMahon M](#), Mulhern S, Murray P, O'Neill L, Strachan L, Iwashyna TJ, Shaw M and Quasim, T. (2022) '[A multicentre evaluation exploring the impact of an integrated health and social care intervention for the caregivers of ICU survivors.](#)', *Critical Care*, 26, pp.152. (Cited 7 Times)

Below is the complete list of NHS Fife author affiliated publications produced within the year. Local authors are underlined within the references. Links to the full-text are provided where possible.

### List of Publications in Alphabetical Order

Abed Al Ahad M, Demsar U, Sullivan F and Kulu H. (2022) '[Does long-term air pollution exposure affect self-reported health and limiting long term illness disproportionately for ethnic minorities in the UK? A census-based individual level analysis](#)', *Applied Spatial Analysis and Policy*.

Achison M., Adamson S., Akpan A., Aspray T., Avenell A., Band M.M., Bashir T., Burton L.A., Cvoro V., Donnan P.T., Duncan G.W., George J., Gordon A.L., Gregson C.L., Hapca A., Henderson E., Hume C., Jackson T.A., Kemp P., Kerr S., Kilgour A., Lyell V., Masud T., McKenzie A., McKenzie E., Patel H., Pilvinyte K., Roberts H.C., Rossios C., Sayer A.A., Smith K.T., Soiza R.L., Steves C.J., Struthers A.D., Sumukadas D., Tiwari D., Whitney J. and Witham, M.D. (2022) '[Effect of perindopril or leucine on physical performance in older people with sarcopenia: the LACE randomized controlled trial.](#)', *Journal of Cachexia, Sarcopenia and Muscle*, 13(2), pp.858-871.

Akhtar MA, Hoellwarth JS, Tetsworth K, Oomatia A and Al Muderis, M. (2022) '[Osseointegration following transfemoral amputation after infected total knee replacement: A case series of 10 patients with a mean follow-up of 5 years.](#)', *Arthroplasty Today*, 16, pp.21-30.

AlMomani H, Perry A, Nelson A, Stewart CJ, Jones R, Krishnan A, Robertson A, Bourke S, Doe S, Cummings S, Anderson A, Forrest T, Forrest I, Griffin M, Wilcox M, Brodrie M, Pearson J and Ward, C. (2022) '[Exposure to bile and gastric juice can impact the aerodigestive microbiome in people with cystic fibrosis.](#)', *Scientific Reports*, 12(1), 11114.

Alonso M.R., Sellius A.B., Buttigieg G., Correia D., Lopes B.C., Fabregat G., de Flor de Lima M.T., Penalta M.G., Goran G., Jutila L., Kinnunen M., KotlinskaLemieszek A., Krzan M., Launois F., Ljutow A., Machado I., Margarit C., Marttinen M., Morlion B., O'Brien J., del Padilla del Rey M.L., Phelan M., Navalhinhas M.P., Pickering G., Pireza I., Reneman M., Silva A., Skvarc N., Toyryla K., Wuestefeld M., Barke A., Cano Palomares A., Cameron P., Forget P., Ryan D., Vanhaute O. and Wilkinson, J. (2022) '[Why do we need to implement the ICD-11? When pain science and practice meet policies.](#)', *European Journal of Pain (United Kingdom)*, (28 July).

Anderson MJ, Chinn DJ and Styles CJ. (2022) '[Long-term trends in incidence and prevalence of severe sight impairment due to diabetes in South East Scotland before and after implementation of diabetic retinopathy screening.](#)', *British Journal of Visual Impairment*.

Appleton, J. V., Bekaert, S., Hucker, J., Zlatkute, G., Paavilainen, E., Shecke, H., Specka, M., Scherbaum, N., Jouet, E., Zabłocka-Żytka, L., Woźniak-Prus, M., Czabała, J. C., Kluczyńska, S., Bachi, B., Bartoli, F., Carrà, G., Cioni, R. M., Crocamo, C., Rantanen, H. E., ... [Baldacchino, A.](#) (2022). [A pan-European review of good practices in early intervention safeguarding practice with children, young people and families: evidence gathering to inform a multi-disciplinary training programme \(the ERICA project\) in preventing child abuse and neglect in seven European countries.](#) *International Journal on Child Maltreatment: Research, Policy and Practice, Latest Articles.*

Aronowitz, S. V., Carroll, J. J., Hansen, H., Jauffret-Roustide, M., Parker, C. M., Suhail-Sindhu, S., Albizu-Garcia, C., Alegria, M., Arrendondo, J., [Baldacchino, A.](#), Bluthental, R., Bourgois, P., Burraway, J., Chen, J., Ekhtiari, H., Elkhoy, H., Farhoudian, A., Friedman, J., Jordan, A., ... Thi Hai Oanh, K. (2023). **Substance use policy and practice in the COVID-19 pandemic: learning from early pandemic responses through internationally comparative field data.** *Global Public Health, Latest Articles*, 1-16. [No full text available]

Atti, A., Insalata, F., Carr, E. J., Otter, A. D., Castillo-Olivares, J., Wu, M., Harvey, R., Howell, M., Chan, A., Lyall, J., Temperton, N., Cantoni, D., da Costa, K., Nadesalingam, A., Taylor-Kerr, A., Hettiarachchi, N., Tranquillini, C., Hewson, J., [Dhasmana, D.](#) Hall, V. (2022). [Antibody correlates of protection from SARS-CoV-2 reinfection prior to vaccination: a nested case-control within the SIREN study.](#) *Journal of Infection*, 85(5), 545-556.

Ayalew, M.B., Dieberg, G., [Quirk, F.](#) and Spark, M.J. (2020) '[Potentially inappropriate prescribing for adults with diabetes mellitus: a scoping review protocol.](#)', *JBIC Evidence Synthesis*, 18(7), pp.1557-1565.

Ayalew, M. B., Spark, M. J., [Quirk, F. H.](#) & Dieberg, G. (2022). '[Potentially inappropriate prescribing for adults living with diabetes mellitus: a scoping review.](#)' *International Journal of Clinical Pharmacy.*

Babl, F. E., Herd, D., Borland, M., Kochar, A., Lawton, B., Hort, J., West, A., George, S., Zhang, M., Velusamy, K., [Sullivan, F.](#), Oakley, E., Davidson, A., Hopper, S. M., Cheek, J. A., Berkowitz, R., Hearps, S., Wilson, C. L., Williams, A., ... Paediatric Research in Emergency Departments International Collaborative (PREDICT) (2022) '[Efficacy of prednisolone for Bell palsy in children: a randomized, double-blind, placebo-controlled, multicenter trial.](#)', *Neurology*, (25 Aug).

Baig H, Al Tell T, Ashraf MH, Al Failakawi A, Khan QI, Nasar AM and [Lucocq, J.](#) (2022) '[The variation in outcomes of septic patients: a dual-centre comparative study.](#)', *Cureus*, 14(10), pp.e30677.

Baird D, Muir A, [Logan L](#) and [MacLennan, M.](#) (2022 Jul 15) '[Validation of the NeuMoDx TM SARS-CoV-2 assay with COPAN eNAT and E&O viral PCR sample solution \(VPSS\) collection media types in comparison with other validated SARS-CoV-2 RNA assays.](#)', *International Journal of Infectious Diseases*, 122, pp.864-866.

[Baldacchino AM](#), McCowan C and MacKerron B. (2022) '[ELECTRA 2 Project.](#)' [No full text available]



Barclay, C., Malcolm, E. and Cvorov, V. (2023) '**Should CT head scan 24 hours after thrombolysis be performed routinely?**', *International Journal of Stroke*, Conference: 17th UK Stroke Forum. [no full text available]

Barke A, Cano Palomares A, Cameron P, Forget P, Ryan D, Vanhaute O, Wilkinson J and Societal Impact of Pain, P. (2022 Jul 28) '**Why do we need to implement the ICD-11? When pain science and practice meet policies.**', *European Journal of Pain*.

BaruahYoung J., Bylinski T., Pollock F., Patel R. and Li, L. (2022) '**Anaesthetists! POP (pre-operatively prescribe) those pills!**', *Anaesthesia*, Conference, Abstract 24.

Bates, A., Wei, C., Szweczyk Bieda, M., Donnan, P., Rauchhaus, P., Gandy, S., Ragupathy, S.K.A., Singh, P., Coll, K., Serhan, J., Wilson, J. and Nabi, G. (2023) '**A multicentre parallel-group randomised trial assessing multiparametric MRI characterisation and image-guided biopsy of prostate in men suspected of having prostate cancer: MULTIPROS study.**', *European Urology*, Conference: EAU23 - 38th Annual EAU Congress.

Beer L, Inglis S, Malaguti A, Byrne C, Sharkey C, Robinson E, Gillings K, Radley A, Hapca A, Stephens B and Dillon, J. (2022 May 18) '**Randomized clinical trial: Direct-acting antivirals as treatment for hepatitis C in people who inject drugs: delivered in needle and syringe programs via directly observed therapy versus fortnightly collection.**', *Journal of Viral Hepatitis*, 00, pp.1-8.

Bell, S., Campbell, J., Watters, C., O'Neil, M., Almond, A., Buck, K., Carr, E.J., Cousland, Z., Findlay, M., Joss, N., Metcalfe, W., Spalding, E., Methven, S. and Mark, P.B. (2023) '**The impact of omicron on outcomes following infection with SARS-CoV-2 in patients with kidney failure in Scotland.**', *Clinical Kidney Journal*, 16(1), pp.197-200.

Blackmur, J.P., Chew, E., Trail, M., Brodie, K., Santoni, N., Rodger, F., Hamilton, D., Gaba, F., Randall, S., Nalagatla, S., Little, B., Janjua, K., Sweeney, C., Martindale, A., Qureshi, K., Riddick, A., O'Connor, K., McNeill, S.A., Phipps, S., Cutress, M.L., Mains, E., Dunn, I., Reid, S., Stewart, G.D., Lamb, G., Aslam, M.Z., Leung, S., Clark, R., Wilson, I., Oades, G., Chapman, A. and Laird, A. (2023) '**Assessment of association between lower ureteric excision technique and oncological outcomes for upper urinary tract urothelial carcinoma: retrospective analysis from the Scottish renal cancer consortium.**', *World Journal of Urology*.

Blackmur, J.P., Llewellyn, O., McLennan, R., Kerr, L., Marzoug, A., Al Jaafari, F., Young, N.J., Mariappan, P.T., McNeill, S.A., Teahan, S. and Laird, A. (2023) '**Development and validation of the scottish MUO score to predict short overall survival and augment decision-making in patients with malignant ureteric obstruction.**', *European Urology*, Conference: EAU23 - 38th Annual EAU Congress.

Broad S., Au S. and Manimaran, N. (2022) '**The role of neutrophil-lymphocyte ratio (NLR) in triaging acute diverticulitis patients for hospital admission: a pilot study.**', *Colorectal Disease*. Conference: Association of Coloproctology of Great Britain and Ireland Annual Meeting. Edinburgh United Kingdom, 24(Supplement 2) (pp 26), Abstract 33.

Brown LR, [Sullivan F](#), Treweek S, Haddow A, Mountain R, [Selby C](#) and Beusekom, M.V. (2022) ['Increasing uptake to a lung cancer screening programme: building with communities through co-design.'](#) *BMC Public Health*, 22(1), pp.815.

[Buchanan, P.](#) (2022) **'How important is equality and diversity to your practice?'**, *Dermatological Nursing*, 21(1), pp.6-6. [No full text available]

Burns J., Mc Goldrick N., Sigerson D., Edwards M., Culshaw S., Clark C., Watling C., Braid R., [O'Keefe E.](#), Gorman M. and Conway, D.I. (2022) ['A health inequalities impact assessment of the surveillance of COVID-19 in asymptomatic patients attending dental settings in Scotland.'](#), *Community Dental Health*, 39(4), pp.254-259.

Burt G, Springate C, Martin A, Woodward E, Zantek P, [Al Jaafari F](#), Muir G and Misrai, V. (2022) ['The efficacy and safety of laser and electrosurgical transurethral procedures for the treatment of BPO in high-risk patients: a systematic review'](#), *Research & Reports in Urology*, 14, pp.247-257.

Canny A, Mason B, Stephen J, Hopkins S, Wall L, Christie A, Skipworth RJ, [Bowden J](#), Graham L, Kendall M, Weir CJ and Boyd, K. (2022) ['Advance care planning in primary care for patients with gastrointestinal cancer: feasibility randomised trial.'](#), *British Journal of General Practice*.

Carreno Tarragona G., AlvarezLarran A., Harrison C.N., MartinezAvila J.C., HernandezBoluda J.C., FerrerMarin F., Radia D.H., Mora Castera E., Francis S., GonzalezMartinez T., Goddard K., PerezEncinas M., Narayanan S., Raya J.M., Singh V., Toth P., Gutierrez X., Amat Martinez P., McIlwaine L., Alobaidi M., Mayani K., McGregor A., Stuckey R., Psaila B., Segura A., Alvares C.L., [Davidson K.](#), Osorio S., Cutting R., Sweeney C.P., Rufian L., Moreno L., Cuenca I., Smith J., Morales M.L., GilManso R., Koutsavlis I., Wang L., Mead A.J., Rozman M., MartinezLopez J., Ayala R. and Cross, N.C. (2022) ['CNL and aCML should be considered as single entity based on molecular profiles and outcomes.'](#), *Blood Advances*, date of Publication: 14 Nov 2022.

Cavers D, Nelson M, Rostron J, Robb K, Brown L.R., Campbell C, Akram A, Dickie G, Mackean M, van Beek E, [Sullivan F](#), Steele R, Neilson A.R. Weller D.(2022) ['Optimising the implementation of lung cancer screening in Scotland: focus group participant perspectives in the LUNGSCOT study'](#) *Health Expectations*. 2022;1–13.

Cavers, D., Nelson, M., Rostron, J., Robb, K. A., Brown, L. R., Campbell, C., Akram, A. R., Dickie, G., Mackean, M., van Beek, E. J. R., [Sullivan, F.](#), Steele, R. J., Neilson, A. R., & Weller, D. (2022). ['Understanding patient barriers and facilitators to uptake of lung screening using low dose computed tomography: a mixed methods scoping review of the current literature.'](#) *Respiratory Research*, 23,374.

Cezard, G., [Sullivan, F.](#) & Keenan, K.(2022) ['Understanding multimorbidity trajectories in Scotland using sequence analysis.'](#) *Sci Rep* 12, 16485 (2022).

[Chatha R](#), Anderson R, Chatha H, Cocker LM, Connelly M, Ward C and Hirst, R. (2022) ['Journal update monthly top five.'](#), *Emergency Medicine Journal*, 39(5), pp.415-416.

Chinn, D.J., Pribanovam M., [Quirk, F.](#) (2023) ['The research interest, capacity and culture of NHS staff in South East Scotland and changes in attitude to research following the pandemic: a cross-sectional survey.'](#) *BMC Health Services Research*, 23:20.

Clarke, S., Skinner, J., Drummond, I. and Wood, M. (2023) '[Twelve tips for using tactical decision games to teach non-technical skills.](#)', *Medical Teacher*, 45(1), pp.25-31.

Clement ND, Wickramasinghe NR, Bayram JM, Hughes K, Oag E, Heinz N, Fraser E, Jefferies JG, Dall GF, Ballantyne A and Jenkins, P.J. (2022) '[Significant deterioration in quality of life and increased frailty in patients waiting more than six months for total hip or knee arthroplasty : a cross-sectional multicentre study.](#)', *Bone & Joint Journal*, 104-B(11), pp.1215-1224.

Clifford, C., Paul, L., Syme, G. and Millar, N.L. (2023) '**Active and sedentary individuals with greater trochanteric pain syndrome display different clinical characteristics: a cross-sectional online survey.**', *BMJ Open Sport and Exercise Medicine*, volume 9, issue supplement 1, Abstract 47. [no full text available]

Conti, A., & Baldacchino, A. M. (2022). '[Chronic tobacco smoking, impaired reward-based decision-making, and role of insular cortex: a comparison between early-onset smokers and late-onset smokers.](#)', *Frontiers in Psychiatry*, 13, 939707.

Crawford F, Nicolson DJ, Amanna AE and Smith, M. (2022) '[Reliability of the evidence to guide decision-making in foot ulcer prevention in diabetes: an overview of systematic reviews](#)', *BMC Medical Research Methodology*, 22(1), pp.274.

Cunningham, K. B., Rogowsky, R. H., Carstairs, S. A., Sullivan, F., & Ozakinci, G. (2023). '[Progressing social prescribing with a focus on process of connection: evidence-informed guidance for robust evaluation and evidence synthesis.](#)' *Public Health in Practice*, 5.

Davison, R., Hobbs, M., Quirk, F. and Guppy, M. (2023) '[General practitioners' perspectives on the management of refugee health: A qualitative study.](#)', *BMJ Open*, 13(3).

Dick L. and Young, J. (2022) '[Association between public holidays and acute admission with biliary colic: a retrospective analysis.](#)', *British Journal of Surgery*, Volume 109 issue supplement 5.

Dick L. and Young, J. (2022) '[Biliary tract disease and deprivation: a Scottish retrospective study.](#)', *British Journal of Surgery*, volume 109, issue supplement 5.

Diernberger, K., Luta, X., Bowden, J., Droney, J., Lemmon, E., Tramonti, G., Shinkins, B., Gray, E., Marti, J. and Hall, P.S. (2023) '[Variation in hospital cost trajectories at the end of life by age, multimorbidity and cancer type.](#)', *International Journal of Population Data Science*, 8(1), pp.1768.

Divala, T.H., Corbett, E.L., Kandulu, C., Moyo, B., MacPherson, P., Nliwasa, M., French, N., Sloan, D.J., Chiume, L., Ndaferankhande, M.J., Chilanga, S., Majiga, S.T., Odland, J.O. and Fielding, K.L. (2023) '[Trial-of-antibiotics to assist tuberculosis diagnosis in symptomatic adults in Malawi \(ACT-TB study\): a randomised controlled trial.](#)', *The Lancet Global Health*, 11(4), pp.e556-e565.

Docherty, C., Shaw, M., Henderson, P., Quasim, T., MacTavish, P., Devine, H., O'Brien, P., Strachan, L., Lucie, P., Hogg, L., Sim, M. and McPeake, J. (2023) '[Evaluating pain in survivors of critical illness: the correlation between the EQ-5D-5L and the brief pain inventory.](#)', *BMJ Open Respiratory Research*, 10(1).

Dumbrell, J., Daneshvar, H., Oteo, A., Baldacchino, A., & Matheson, C. (2023). [The acceptability of overdose alert and response technologies: introducing the TPOM-ODART framework.](#) *Harm Reduction Journal*, 20, [40].

Epton T, Ghio D, Ballard LM, Allen SF, Kassianos AP, Hewitt R, Swainston K, Fynn WI, Rowland V, Westbrook J, Jenkinson E, Morrow A, McGeechan GJ, Stanescu S, Yousuf AA, Sharma N, Begum S, Karasouli E, Scanlan D, Shorter GW, Arden Armitage CJ, O'Connor DB, Kamal A, McBride E, Swanson V, Hart J, ByrneDavis L, Chater A and Drury, J. (2022) '[Interventions to promote physical distancing behaviour during infectious disease pandemics or epidemics: a systematic review](#)', *Social Science & Medicine*, 303, 114946.

Exley R., Logan G., Kent S., McDonald C., Henedige A., Henry A., Dawoud B., Kulkarni R., Kyzas P., Morrison R., McCaul J., Brandsma D.S., Cashman H., Swain A., Java K., Vithlani G., Watson M., Christopher M., Murray S., Baniulyte G., Grant J., Wareing S., Kawalec A., Ng T., Reedy N., Tavakoli M., Underwood C., Gowrishankar S., Collins T., Davies R., Uppal S., Elledge R., Shaheen S., O'Connor R., King H., TudorGreen B., Garg M., Wareing J., Wicks C., Mitchell O., Maarouf M., Chohan P., Otukoya R., Wu E., Farooq S., Brewer E., King S., Nandra B., Stevenson S., Stiles E., Davies L., Madattigowda R., Mohindra A., Gilbert K. and Young, D. (2022) '**Airway management, intensive care requirement, and corticosteroid use in cervicofacial infection. A maxillofacial trainee research collaborative (MTReC) study.**', *British Journal of Oral and Maxillofacial Surgery*. [No full text available]

Farrow L, Jenkins PJ, Dunstan E, Murray A, Blyth MJG, Simpson AHRW and Clement, N.D. (2022) '[Predicted waiting times for orthopaedic surgery : an urgent need to address the deficit in capacity.](#)', *Bone & Joint Research*, 11(12), pp.890-892.

Fleming A.D., Mellor J., Jiang W., Storkey A., Styles C.J., McKeigue P.M. and Colhoun, H.M. (2022) '[Safe and efficient 2-year screening intervals allocated by manual and automated grading in nationwide diabetic retinopathy screening.](#)', *Diabetologia*, 58<sup>th</sup> Conference, abstract number 721.

Fornasiero, M., Geropoulos, G., Kechagias, K.S., Psarras, K., Katsikas Triantafyllidis, K., Giannos, P., Koimtzis, G., Petrou, N.A., Lucocq, J., Kontovounisios, C. and Giannis, D. (2022) '[Anastomotic leak in ovarian cancer cytoreduction surgery: a systematic review and meta-analysis](#)', *Cancers*, 14(21), pp.5464.

Foster P.J., Ng W.S., Nolan W.P., Tanner L., Gazzard G., Day A.C., Sanders R., Foot B., Salmon J.F. and AzuaraBlanco, A. (2022) '[Prevention of angle-closure glaucoma: Balancing risk and benefit.](#)', *Eye (Basingstoke)*, 36(12), pp.2229-2231.

Freemantle J.B., Doyle B., MacCallum D., Young P. and Thomson, M.A. (2022) '**Nutritional management of mitochondrial depletion syndrome: a case study.**', *Clinical Nutrition ESPEN. Conference: BAPEN 2021 Virtual, Online*, 48, pp.516. [No full-text available]

Geoghegan, L., Rodrigues, J.N., SideyGibbons, C.J., Stirling, P., McEachan, J.E. and Harrison, C.J. (2023) ['Reply: developing machine learning algorithms to support patient-centered, value-based carpal tunnel decompression surgery.'](#) *Plastic and Reconstructive Surgery - Global Open*, 11(1), pp 4744.

Green, D. L., Keenan, K., Fredricks, K. J., Huque, S. I., Mushi, M. F., Kansime, C., Asiimwe, B., Kiiru, J., Mshana, S. E., [Sloan, D. J.](#), Neema, S., Mwangi, J. R., Kesby, M., Lynch, A. G., Worthington, H., Olamijuwon, E., Abed Al Ahad, M., Aduda, A., Njeru, J. M., Mmbaga, B. T., ... Clarkson, M. (2023). [The role of multidimensional poverty in antibiotic misuse: a mixed-methods study of self-medication and non-adherence in Kenya, Tanzania, and Uganda.](#) *The Lancet Global Health*, 11(1), e59-e68

Griffin KE, Jabbar M and [Turtle, E.J.](#) (2022) ['Development and evaluation of a regional diabetes service app for patient education, self-management and clinic engagement.'](#) *Journal of the Royal College of Physicians of Edinburgh*, 52(4), pp.298-306.

Hall AJ and [Walmsley, P.](#) (2022 May 24) ['Technology-enhanced learning in orthopaedics: virtual reality and multi-modality educational workshops may be effective in the training of surgeons and operating department staff.'](#) *The Surgeon (Journal of the Royal Colleges of Surgeons of Edinburgh & Ireland)*.

Hall, M., Suff, N., Stirrat, L., Coary, C., Abernethy, J., Debray, R., [Tydeman, G.](#) and Shennan, A. (2022) ['Cervical cerclage training: development and assessment of a simulator.'](#) *American Journal of Obstetrics & Gynecology MFM*, 5(3), pp.100853.

Handford C, McMenemy L, Kendrew J, [M. A. Akhtar](#) Parry M and Hindle, P. (2022) ['Improving outcomes for amputees: the health-related quality of life and cost utility analysis of osseointegration prosthetics in transfemoral amputees.'](#) *Injury*, 53(12), pp.4114-4122.

Harrison CJ, Geoghegan L, SideyGibbons CJ, Stirling PHC, [McEachan JE](#) and Rodrigues, J.N. (2022) ['Developing machine learning algorithms to support patient-centered, value-based carpal tunnel decompression surgery.'](#) *Plastic and Reconstructive Surgery - Global Open*, 10(4), pp.e4279.

Harrison, J., Keenan, K., [Sullivan, F.](#), & Kulu, H. (2023). [Union formation and fertility amongst immigrants from Pakistan and their descendants in the United Kingdom: a multichannel sequence analysis.](#) *Demographic Research*, 48, 271–320.

Hatem F, Baig H, Khaldas F and [Lucocq, J.](#) (2022) ['Negative appendectomy rates in females of childbearing age: a retrospective analysis and literature review.'](#) *Cureus*, 14(7), e27412.

Hazelton C, McGill K, Campbell P, TodhunterBrown A, Thomson K, Nicolson DJ, Cheyne JD, [Chung C](#), Dorris L, Gillespie DC, Hunter SM and Brady, M.C. (2022) ['Perceptual disorders after stroke: a scoping review of interventions'](#), *Stroke*, 53(5), pp.1772-1787.



Hazelton C, Thomson K, TodhunterBrown A, Campbell P, Chung CS, Dorris L, Gillespie DC, Hunter SM, McGill K, Nicolson DJ, Williams LJ and Brady, M.C. (2022) ['Interventions for perceptual disorders following stroke'](#), *Cochrane Database of Systematic Reviews*, 11, pp.007039.

Hernandez Santiago, V., Flynn, A., Daly, F., and Sullivan, F. (2022). **'Bell's Palsy.'** In *Comprehensive Pharmacology*, pp.123-138.

Hiremath S, Doukrou M, Flannery H, Carey C, Gregorowski A, Ward J, Hargreaves D and Segal, T.Y. (2022) ['Key features of a multi-disciplinary hospital-based rehabilitation program for children and adolescents with moderate to severe myalgic Encephalomyelitis/Chronic fatigue syndrome ME/CFS'](#), *International Journal of Environmental Research & Public Health [Electronic Resource]*, 19(20).

Hobbs, M. J., Ketheesan, N., Eastwood, K., Massey, P., Ranmuthugala, G., Norton, R., & Quirk, F. H. (2022). ['Q Fever awareness and risk profiles among agricultural show attendees.'](#) *Australian Journal of Rural Health*.

Hoellwarth JS, Tetsworth K, Oomatia A, Akhtar MA, Xu H and Al Muderis, M. (2022) ['Association between osseointegration of lower extremity amputation and mortality among adults.'](#), *JAMA Network Open*, 5(10), pp.e2235074

Hoellwarth, J.S., Tetsworth, K., Akhtar, M.A., Oomatia, A. and Al Muderis, M. (2022) ['Motorized intramedullary lengthening followed by osseointegration for amputees with short residual femurs: An observational cohort study'](#), *Journal of Limb Lengthening & Reconstruction*, 8(2), pp.93-102.

Hohn A, McGurnaghan SJ, Caparrotta TM, Jeyam A, O'Reilly JE, Blackburn LAK, Hatam S, Dudel C, Seaman RJ, Mellor J, Sattar N, McCrimmon RJ, Kennon B, Petrie JR, Wild S, McKeigue PM, Colhoun HM and SDRNEpi, G. (2022) ['Large socioeconomic gap in period life expectancy and life years spent with complications of diabetes in the Scottish population with type 1 diabetes, 2013-2018.'](#), *PLoS ONE*, 17(8), e0271110.

Hor K., Johnstone J. and Allison, J. (2022) ['Covid-19: evaluation of prevalence and outcomes in a Scottish district general hospital.'](#), *BJOG: An International Journal of Obstetrics and Gynaecology*, Conference, No.EP.0905.

Horby, P. W., Peto, L., Staplin, N., Campbell, M., Pessoa-Amorim, G., Mafham, M., Emberson, J. R., Stewart, R., Prudon, B., Uriel, A., Green, C. A., Dhasmana, D. J., Malein, F., Majumdar, J., Collini, P., Shurmer, J., Yates, B., Baillie, J. K., Buch, M. H., ... Landray, M. (2022). ['Dimethyl fumarate in patients admitted to hospital with COVID-19 \(RECOVERY\): a randomised, controlled, open-label, platform trial.'](#) (medRxiv).

Hoyle, A., Gillett, P., Gillett, H.R., Borg, R., Nottley, S., Farrow, S., Elgoweini, M., Elhassan, M., Fletcher, J., Whannel, G., Gracie, E., Morgan, S., Jafferbhoy, H., Dunbar, L., Reid, G., Metcalfe, E.L., Smith, G., Harris, S., Robertson, C., Thomas, M., Younger, H. and Furrie, E. (2023) ['No-biopsy strategy for coeliac disease is applicable in adult patients: a 'real-world' Scottish experience.'](#), *Frontline Gastroenterology*, 14(2), pp.97-102.

Hughes K, Davidson E and Harrison, S. (2022) ['An unlucky "double blow" to the fingers.'](#), *BMJ*, 378, e070083.

Hughes, L.D. (2022) ['Understanding the processes behind the decisions - GPs and complex multimorbidity decision making.'](#), *BMC Primary Care*, 23(1), pp.162.

Jabbal M, Clement N. Walmsley, P.J. (2022) ['All-polyethylene tibia components have the same functional outcomes and survival, and are more cost-effective than metal-backed components in patients 70 years and older undergoing total knee arthroplasty : propensity match study with a minimum five-year follow-up.'](#), *Bone & Joint Open*, 3(12), pp.969-976.

Jack F and Hunter, D. (2022) ['Creating an interprofessional education package on patients' spiritual needs.'](#), *British Journal of Nursing*, 31(14), pp.748-755.

Kalia, S., Saarela, O., Chen, T., O'Neill, B., Meaney, C., Gronsbell, J., Sejdic, E., Escobar, M., Aliarzadeh, B., Moineddin, R., Pow, C., [Sullivan, F.](#), and Greiver, M. (2022). **'Marginal structural models using calibrated weights with SuperLearner: application to type II diabetes cohort.'**, *IEEE Journal of Biomedical and Health Informatics*. [No full text available]

Kalia, S., Greiver, M., [Sullivan, F.](#), Pow, C. and Sheikh, A.(2022) [Data on Patient Record Trajectory for Linkage \(DataPRinT Linkage\).](#), *International Journal of Population Data Science*, 7(3).

Kalia, S., Saarela, O., O'Neill, B., Meaney, C., Moineddin, R., [Sullivan, F.](#), & Greiver, M. (2023). [Emulating a target trial using primary care electronic health records: SGLT-2i medications and Hemoglobin A1c.](#) *American Journal of Epidemiology*, Advance Article.

Keir H.R., Long M.B., Abo Leyah H., Giam Y., Vadiveloo T., Pembridge T., Hull R., Delgado L., Band M., McLarenNeill F., Adamson S., Lahnsteiner E., Gilmour A., Hughes C., New B.J.M., Connell D., Dowe R., Turton H., Richardson H., Cassidy D., Cooper J., Suntharalingam J., Diwakar L., Russell P., Underwood J., Hicks A., Dosanjh D.P., Sage E., [Dhasmana D.](#), Spears M., Thompson R., Brightling C., Patel M., George J., Condliffe A.M., Shoemark A., MacLennan G. and Chalmers, J.D. (2022) ['A randomized double-blind placebo-controlled trial of dipeptidyl peptidase-1 inhibition in hospitalized patients with COVID-19: the STOP-COVID19 trial.'](#), *American Journal of Respiratory and Critical Care Medicine*, Conference.

Keir HR, Long MB, AboLeyah H, Giam YH, Vadiveloo T, Pembridge T, Hull RC, Delgado L, Band M, McLarenNeil F, Adamson S, Lahnsteiner E, Gilmour A, Hughes C, New BJ, Connell D, Dowe R, Turton H, Richardson H, Cassidy D, Cooper J, Suntharalingam J, Diwakar L, Russell P, Underwood J, Hicks A, Dosanjh DP, Sage B, [Dhasmana D](#), Spears M, Thompson AR, Brightling C, Smith A, Patel M, George J, Condliffe AM, Shoemark A, MacLennan G, Chalmers JD and STOPCOVID, I. (2022 Sep 02) ['Dipeptidyl peptidase-1 inhibition in patients hospitalised with COVID-19: a multicentre, double-blind, randomised, parallel-group, placebo-controlled trial.'](#), *The Lancet Respiratory Medicine*, 10(12), pp.1119-1128.

Khan QI, Baig H, Al Failakawi A, Majeed S, Khan M and [Lucocq, J.](#) (2022) '[The effect of platelet-rich plasma on healing time in patients following pilonidal sinus surgery: a systematic review](#)', *Cureus*, 14(8), e27777.

Khan S, Chopra C, [Mitchell A](#), Nakonechna A, Yong P and Karim, M.Y. (2022) '[Resistant chronic spontaneous urticaria - a case series narrative review of treatment options](#)', *Allergy & Rhinology*, 13, pp.21526575221144951.

Kitema, G. F., Laidlaw, A. H., O'Carroll, V., Sagahutu, J. B., & [Blaikie, A.](#) (2023). [The status and outcomes of interprofessional health education in sub-Saharan Africa: a systematic review](#). *Journal of Interprofessional Care*, Latest Articles.

Kousha O., Staniszewski B., [Ulloa J.L.](#), Tarafdar S., Ellis J. and [Blaikie, A.](#) (2022) '[Frugal retinal laser training simulation eyes.](#)', *Eye*, 36(5), pp.1129-1130.

Lambert, M. A., Houston, J. G., Littleford, R., Fitton, C. A., Struthers, A., [Sullivan, F.](#), Gandy, S., & Belch, J. J. F. (2022). [Tayside Screening For Cardiac Events \(TASCFORCE\) study: a prospective cardiovascular risk screening study](#). *BMJ Open*, 12(10).

Lambourg E, Walker H, Campbell J, Watters C, O'Neil M, Donaldson L, Siddiqui MK, Almond A, [Buck K](#), Cousland Z, Joss N, Metcalfe W, Methven S, Sanu V, Spalding E, Traynor JP, Lone NI, Bell S and Scottish Renal, R. (2022 Nov 15) '[Incidence and outcomes of patients receiving chronic kidney replacement therapy admitted to Scottish ICUs between 2009 and 2019 - a national observational cohort study.](#)', *Critical Care Medicine*

Large JF, [O'Keefe E](#), Valentine C and Roebuck, E.M. (2022) '[Weight screening in paediatric dentistry: what do families and staff think?](#)', *International Journal of Paediatric Dentistry*, 32(Suppl 1), pp.64-66.

Laskawska Hebert HL, Richardson C, Berlouis K, [Cameron P](#), Colvin LA and Smith, B.H. (2022) '[The core minimum dataset for measuring pain outcomes in pain services across Scotland: developing and testing a brief multi-dimensional questionnaire.](#)', *British Journal of Pain*, 16(5), pp.504-517.

Low C., [Brunt A.](#), [Jeyakumar J.](#), [Hall A.](#), [Walmsley P.](#), [Ballantyne A.](#) and [Akhtar, A.](#) (2021) '[Mortality following periprosthetic fractures of the femur: a retrospective analysis of the risk factors.](#)', *Geriatric Orthopaedic Surgery and Rehabilitation. Conference: 9th Fragility Fracture Network Congress. Virtual*, 12, pp.4-5 (P009).

[Lucocq J](#), Taylor A, [Driscoll P](#), [Naqvi S](#), [MacMillan A](#), [Bennett S](#), [Luhmann A](#) and [Robertson, A.G.](#) (2023) '[Laparoscopic lumen-guided cholecystectomy in face of the difficult gallbladder.](#)', *Surgical Endoscopy*, 37(1), pp.556-563.

[Lucocq J.](#), [Barron E.](#), [Donnelly P.](#) and [Cruickshank, N.](#) (2022) '[The significance of anaemia and symptoms for the prediction of colorectal cancer in the age of](#)



[quantitative faecal-immunochemical test.](#)', *Colorectal Disease*, Conference, pp.17th. Abstract 271.

Luta X, Diernberger K, [Bowden J](#), Droney J, Hall P and Marti, J. (2022 May 11) '[Intensity of care in cancer patients in the last year of life: a retrospective data linkage study.](#)', *British Journal of Cancer*.

Maciver, D., Rutherford, M., Johnston, L., Curnow, E., [Boilson, M.](#) and Murray, M. (2022) '[An interdisciplinary nationwide complex intervention for lifespan neurodevelopmental service development: underpinning principles and realist programme theory.](#)', *Frontiers in Rehabilitation Sciences*, 3, pp.1060596.

[Mackay, S.](#), Layden, E. and Madhra, M. (2023) '[Ectopic pregnancy.](#)', *Obstetrics, Gynaecology and Reproductive Medicine*, 33(3), pp.81-87. [no full text available]

Mariappan P., Johnston A., Trail M., Hamid S., [Dreyer B.A.](#), Ramsey S., Boden A., Maresca G., Hasan R., Hollins G., Sharpe C., Thomas B.G., Padovani L., Garau R., GuerreroEnriquez J., [Simpson H.](#), Bhatt J., Ahmad I., Nandwani G.M., Chaudhry A.H., Khan R.S., Dimitropoulos K., Graham C. and Hendry, D. (2022) '[A more nuanced approach to repeat transurethral resection of bladder tumour \(re-TURBT\): Multicentre real world long-term outcomes from 1,219 primary high grade non-muscle invasive bladder cancer \(NMIBC\) patients managed within the Scottish bladder cancer quality performance indicator \(QPI\) programme.](#)', *Journal of Clinical Urology*, Conference: 2022 BAUS Annual Scientific Meeting. Birmingham United Kingdom, June 2022.

McCallum, A. D., Pertinez, H. E., Chirambo, A. P., Sheha, I., Chasweka, M., Malamba, R., Shani, D., Chitani, A., Mallewa, J. E., Meghji, J. Z., Ghany, J. F., Corbett, E. L., Gordon, S. B., Davies, G. R., Khoo, S. H., [Sloan, D. J.](#) and Mwandumba, H. C. (2022). '[High intrapulmonary rifampicin and isoniazid concentrations are associated with rapid sputum bacillary clearance in patients with pulmonary tuberculosis.](#)', *Clinical Infectious Diseases*, 75(9).

McCartney, G., McMaster, R., [Popham, F.](#), Dundas, R. and Walsh, D. (2022) '[Is austerity a cause of slower improvements in mortality in high-income countries? A panel analysis](#)', *Social Science & Medicine*, volume 313.

McCartney, M., Bergeron Hartman, R., Feldman, H., MacDonald, R., [Sullivan, F.](#), Heneghan, C., & McCutcheon, C. (2022). '[How are declarations of interest working? A cross-sectional study in declarations of interest in healthcare practice in Scotland and England in 2020/2021.](#)' *BMJ Open*, 12(11).

McColgan D, [Sandeman D](#) and Brady, A.J.B. (2021) '[A national heart disease strategy for Scotland: the BHF proposal to government.](#)', *British Journal of Cardiology*, 28(2), pp.25.

McCowan, C., Bakhshi, A., McConnachie, A., Malcolm, W., Barry, S. J., [Hernandez Santiago, V.](#), & Leanord, A. (2022). '[E. coli bacteraemia and antimicrobial resistance following antimicrobial prescribing for urinary tract infection in the community.](#)' *BMC Infectious Diseases*, 22.

McGoldrick N. and O'Keefe, E. (2022 Mar 13) '[Surveillance of COVID-19 cases associated with dental settings using routine health data from the East of Scotland](#)

[with a description of efforts to break chains of transmission from October 2020 to December 2021.](#), *Medrxiv*.

McGurnaghan SJ, Blackburn LAK, Caparrotta TM, Mellor J, Barnett A, Collier A, Sattar N, McKnight J, Petrie J, Philip S, Lindsay R, Hughes K, McAllister D, Leese GP, Pearson ER, Wild S, McKeigue PM and Colhoun, H.M. (2022) '[Cohort profile: the Scottish diabetes research network national diabetes cohort - a population-based cohort of people with diabetes in Scotland.](#)', *BMJ Open*, 12(10), pp.e063046.

McNab E, Hollins Martin CJ and Norris, G. (2022) '[Factors that influence father's experiences of childbirth and their implications upon postnatal mental health: a narrative systematic review](#)', *Nurse Education in Practice*, 65, pp.103460.

McNeill ER, [Lucocq J](#), Brown K and Kay, V. (2022 Aug 30) '[The impact on complication rates of delayed routine pessary reviews during the COVID-19 pandemic.](#)', *International Urogynecology Journal*, (30 August).

McPeake J, Henderson P, MacTavish P, Devine H, Daniel M, Lucie P, Bolland L, [Hogg L](#), [MacMahon M](#), Mulhern S, Murray P, O'Neill L, Strachan L, Iwashyna TJ, Shaw M and Quasim, T. (2022) '[A multicentre evaluation exploring the impact of an integrated health and social care intervention for the caregivers of ICU survivors.](#)', *Critical Care*, 26, pp.152.

Mellor J., Jiang W., Fleming A.D., [Styles C.J.](#), Storkey A., McKeigue P.M. and Colhoun, H.M. (2022) '[Evaluation of deep learning prediction models for cardiovascular risk prediction using fundus images from the Scottish diabetic retinopathy screening programme.](#)', *Diabetologia*, 58<sup>th</sup> Conference, abstract number 794.

Mercer F, Parkes T, Foster R, [Steven D](#), McAuley A, [Baldacchino A](#), Steele W, Schofield J and Matheson, C. (2022 Sep 27) '[Patient, family members and community pharmacists' views of a proposed overdose prevention intervention delivered in community pharmacies for patients prescribed high-strength opioids for chronic non-cancer pain: An explorative intervention development study.](#)', *Drug & Alcohol Review*.

Moffat, K. R., Shi, W., Cannon, P., & [Sullivan, E.](#) (2023). [Factors associated with recruitment to randomised controlled trials in general practice: a systematic mixed studies review.](#) *Trials*, 24, [90].

Monu, J. and [Sunil, S.](#) (2023) '[The net promoter score with friends and family test applied to arthroscopic shoulder surgery.](#)', *Clinics in Shoulder & Elbow*, 26(1), pp.20-24.

Morton, L., Cogan, N., Kolacz, J., Calderwood, C., Nikolic, M., [Bacon, T.](#), Pathe, E., Williams, D. and Porges, S.W. (2022) '[A new measure of feeling safe: developing psychometric properties of the neuroception of psychological safety scale \(NPSS\)](#)', *Psychological Trauma: Theory, Research, Practice, and Policy*. [No full-text available]

Mueller T., Kurdi A., Hall E., Bullard I., Wapshott J., Goodfellow A., [Platt N.](#), Proud E., McTaggart S., Bennie M. and Sheikh, A. (2022) '[Assessing medication use patterns in patients hospitalised with COVID-19: a retrospective study.](#)', *BMJ Open*, 12(12).

Musbahi A., Clyde D., [Robertson A.G.](#), Mahawar K. and Lamb, P. (2022) '[A systematic review of patient and public involvement and GRIPP 2 use in bariatric surgery trials: the need for more work.](#)', *Obesity Surgery*, Conference, 32(Suppl 1),S1-S38, (no. P18).

Musbahi A, Clyde D, Small P, Courtney M, Mahawar K, Lamb PJ and [Robertson, A.G.N.](#) (2022 Sep 03) '[A systematic review of patient and public involvement \(PPI\) in bariatric research trials: The need for more work](#)', *Obesity Surgery*.

Musisi, E., Ssesolo, A., [Sloan, D. J.](#), Gillespie, S. H. and Sabiiti, W. (2022). '[Detection and quantification of viable Mycobacterium tuberculosis bacilli in saline-processed stool samples by Tuberculosis Molecular Bacterial Load Assay: a potential alternative for processing stool.](#)', *Microbiology Spectrum*.

O'Carroll, V., [Kousha, O.](#), Kitema, G. F., Sagahutu, J. B., Denys, N., Kayiranga, D., Rujeni, N., & [Blaikie, A.](#) (2023). '[Interprofessional Arclight™ eye health workshop: impact on students' clinical identification and ophthalmic skills.](#)' *Journal of Interprofessional Care*, Latest Articles.

Olamijuwon, E., Konje, E., Kansime, C., Kesby, M., Keenan, K., Neema, S., Asiimwe, B., Mshana, S. E., Mushi, M. F., Loza, O., Sunday, B., Sandeman, A., [Sloan, D. J.](#), Benitez-Paez, F., Mwangi, J. R., Sabiiti, W., Holden, M. T. G., & CARE Consortium (2023). '[Antibiotic dispensing practices during COVID-19 and implications for antimicrobial resistance \(AMR\): parallel mystery client studies in Uganda and Tanzania.](#)' *Antimicrobial Resistance & Infection Control*, 12(1), [10].

O'Neill, B., Yusuf, A., Kurdyak, P., Kiran, T., [Sullivan, F.](#), Chen, T., Kalia, S., Eisen, D., Anderson, E., Selby, P., & Campbell, D. (2023). '[Diabetes care among individuals with and without schizophrenia in three Canadian provinces: a retrospective cohort study.](#)' *General Hospital Psychiatry*, 82, 19-25.

O'Shaughnessy, D. M., Sarnyai, Z., [Quirk, F.](#), & Rodd, R. (2022). '[Traditional Amazonian medicine in addiction treatment: qualitative results.](#)' *SSM - Qualitative Research in Health*, 2, 100086.

Oteo, A., Daneshvar, H., [Baldacchino, A.](#) and Matheson, C. (2023) '[Overdose alert and response technologies: State-of-the-art review](#)', *Journal of Medical Internet Research*, 25, pp.e40389.

Pascall D.J., Vink E., Blacow R., [Bulteel N.](#), Campbell R., Campbell A., Clifford S., Davis C., da Silva Filipe A., El Sakka N., Fjodorova L., [Forrest R.](#), Goldstein E., Gunson R., Haughney J., Holden M.T.G., Honour P., Hughes J., James E., Lewis T., MacLean O., McHugh M., Mollett G., Nyberg T., Onishi Y., Parcell B., Ray S., Robertson D.L., Seaman S.R., Shabaan S., Shepherd J.G., Smollett K., Templeton K., Wastnedge E., Wilkie C., Williams T. and Thomson, E.C. (2022) '[Inconsistent directions of change in case severity across successive SARS-CoV-2 variant waves suggests an unpredictable future.](#)' *Medrxiv*, 2022.

- Pelosi, A.J. and Arulnathan, V. (2023) '[Neglecting the care of people with schizophrenia: here we go again.](#)', *Psychological Medicine*, , pp.1-6
- Petch S, McAuliffe F, O'Reilly S, Murphy C, CoulterSmith S, de Campos DA, Khattak H and Mahmood, T. (2022) '[Folic acid fortification of flour to prevent neural tube defects in Europe - a position statement by the European Board and College of Obstetrics and Gynaecology \(EBCOG\).](#)', *European Journal of Obstetrics, Gynecology, & Reproductive Biology*, 279, pp.109-111
- Phillips EC, Hamilton AL, Clarke B, Kerins J and Tallentire, V.R. (2022) '[Online non-technical skills faculty training.](#)', *The Clinical Teacher*, e13548.
- Pirzada, P., Morrison, D., Doherty, G. H., Dhasmana, D. J., and Harris-Birtill, D. C. C. (2022, May 27). '[Automated Remote Pulse Oximetry System \(ARPOS\) Methodology and Protocol.](#)'
- Pirzada P, Morrison D, Doherty G, Dhasmana D and Harris-Birtill, D. (2022) '[Automated remote pulse oximetry system \(ARPOS\).](#)', *Sensors*, 22(13), 4974.
- Quinn S, Rhynas S, Gowland S, Cameron L, Braid N and O Connor, S. (2022 Aug 22) '[Risk for intellectual disability populations in inpatient forensic settings in the United Kingdom: a literature review](#)', *Journal of Applied Research in Intellectual Disabilities*, (22 August).
- Quinn S, Rhynas SJ, Gowland S, Cameron L, Braid N, Holloway A and O'Connor S. (2022 Aug 24) '[Evaluating a visual communications tool to explore risk and safety with nurses and patients within an intellectual disability forensic service: a pilot study.](#)', *Journal of Intellectual & Developmental Disability* (24 August).
- Quinn TJ, TaylorRowan M, Elliott E, Drozdowska B, McMahon D, Broomfield NM, Barber M, MacLeod MJ, Cvoro V, Byrne A, Ross S, Crow J, Slade P, Dawson J and Langhorne, P. (2022) '[Research protocol - assessing post-stroke psychology longitudinal evaluation \(APPLE\) study: a prospective cohort study in stroke.](#)', *Cerebral Circulation - Cognition and Behavior*, 3, pp.100042.
- Raman, R. (2023) '[High-potency benzodiazepine misuse in opioid-dependent patients: use naloxone with care.](#)', *Emergency Medicine Journal*, 40(3), pp.224-227.
- Reid J. and Brocklesby, L. (2022) '[Recognition and management of patients with frailty in the emergency department.](#)', *Emergency Nurse : The Journal of the RCN Accident and Emergency Nursing Association*.
- Roe, L., Dobroski, S., Manley, G., Warner, H., Dritschel, H. J., & Baldacchino, A. M. (2023). '[Fractals for an ethnography of time and addiction: recursive and self-similar temporalities in heroin and poly-substance use .](#) *Frontiers in Psychiatry*, 14, [1116142].

Saad A., AzuaraBlanco A., [Styles C.](#), Bailey C., McAuley D., Steel D.H., Ghanchi F.D., Menon G., Eleftheriadis H., Efraimidis S., Cook J., Wang A., Sones W., Acharya N., Lois N., Waugh N., Mistry H., Maredza M., Fatum S., Sivaprasad S., Aldington S., Scanlon P.H., Ivanova K., Aslam T.M., Chong V., Jackson A., McNally C., Rice R. and Prior, L. (2022 May 6) '[Patients views on a new surveillance pathway involving allied non-medical staff for people with treated diabetic macular oedema and proliferative diabetic retinopathy.](#)', *Eye*.

SavonaVentura C, [Mahmood T](#), Mukhopadhyay S, Martins N, Louwen F and Tarlatzis, B. (2022) '**The consequences of armed conflict on the health of women and newborn and sexual reproductive health - a position statement by the European Board and College of Obstetrics and Gynaecology (EBCOG).**', *European Journal of Obstetrics, Gynecology, & Reproductive Biology*, 274, pp.80-82. [No full text available]

Savona-Ventura, C. and [Mahmood, T.](#) (2022) '**Commercial air and high-altitude travel by pregnant women: A scientific review commissioned by the European Board and College of Obstetrics and Gynaecology (EBCOG)**', *European Journal of Obstetrics & Gynecology & Reproductive Biology*, 272, pp.217-219. [No full text available]

SavonaVentura C and [Mahmood, T.](#) (2022) '[The role of traditional complementary physical interventions in obstetrics - a scientific review commissioned by the european board and college of obstetrics and gynaecology \(EBCOG\).](#)', *European Journal of Obstetrics, Gynecology, & Reproductive Biology*, 279, pp.84-87.

Saxby E., Cheng K., [O'Connell N.](#), [Sanders R.](#) and Agarwal, P.K. (2022) '[Is there an association of socioeconomic deprivation with acute primary angle closure?](#)', *Eye (Basingstoke)*, 36(6), pp.1246-1252.

[Scally B.J.](#), Buxton G. and Smith, J.K. (2022) '[Five years of outpatient parenteral antibiotic therapy with ceftriaxone in the paediatric emergency department: what clinical features are associated with need for admission?](#)', *Emergency Medicine Journal*, 39(10), pp.760-765.

Shoamanesh A., Molina C.A., Adie K., Catanese L., Kafle P., Masjuan J., MartiFabregas J., [Cvoro V.](#), Choulerton J., Vanacker P., Dahal A., Seiffge D.J., Nolte C.H., Endres M., Zhang Q., Hughes T.A., Wang W., Cooper M., Ligot N., Loos C., Graham B., Talaat F.M., Lemmens R., Salman R.A.S., Dowlathshahi D., Castellanos M., Aref H., Borah N.C., De ArceBorda A.M., Tembl J.L., Casado Naranjo I., Smith E.E., Reeh K., Taylor A., Katsanos A., Hart R.G. and Connolly, S.J. (2022)

['Edoxaban for stroke prevention in intracranial hemorrhage survivors with atrial fibrillation: design of the ongoing enrich-af global randomized trial.'](#) *European Stroke Journal*, Conference: 8th European Stroke Organisation Conference. Lyon France, no.1750.

Singh S., Gray A., Shepperd S., Stott D.J., Ellis G., Hemsley A., Khanna P., Ramsay S., Schiff R., Tsiachristas A., [Wilkinson A.](#) and Young, J. (2022) '[Is comprehensive geriatric assessment hospital at home a cost-effective alternative to hospital admission for older people?.](#)', *Age and Ageing*, 51(1).

Smith MB, [Stirling PHC](#) and [McEachan, J.E.](#) (2022 Jul 16) '**Long-term functional outcomes after total wrist arthrodesis.**', *Hand Surgery and Rehabilitation*. [No full-text available]

Snowden G, Jabbal M and [Akhtar, A.](#) (2022 May 9) '[Radiation safety awareness and practices amongst orthopaedic surgeons in Scotland.](#)', *Scottish Medical Journal*.

Stewart KE, [Zeidler M](#), [Srinivasan D](#) and [Yeo, J.C.L.](#) (2022) '[Opsoclonus-myoclonus paraneoplastic syndrome in nasopharyngeal carcinoma.](#)', *BMJ Case Reports*, 15(10).

[Stirling P](#), [Snowden GT](#) and [McEachan, J.E.](#) (2022) '**Zone 1 and 2 flexor tendon repair via a longitudinal incision crossing the volar distal interphalangeal joint: functional and cosmetic outcomes.**', *Annals of the Royal College of Surgeons of England*. (No full text available)

[Stirling PHC](#), [Simpson CJ](#), [Ring D](#), [Duckworth AD](#) and [McEachan, J.E.](#) (2022) '**Virtual management of clinically suspected scaphoid fractures.**', *Bone & Joint Journal*, 104-B(6), pp.709-714. [No full text available]

[Stirling PHC](#), [Duckworth AD](#) and [McEACHAN, J.E.](#) (2022) '**Self-reported disability following surgery for Dupuytren contracture in diabetic and non-diabetic patients.**', *The Journal of Hand Surgery Asian-Pacific Volume*, 27(3), pp.453-458. [No full-text available]

[Stirling PHC](#) and [McEachan, J.E.](#) (2022) '[In vitro testing of flexor tendon repair models: variability in the current literature.](#)', *Journal of Hand Surgery: European Volume*, 48(2), pp.162-168.

[Stirling PHC](#), [Harrison SJ](#) and [McEachan, J.E.](#) (2022) '[The effect of diabetes mellitus on the outcome of surgery for cubital tunnel syndrome.](#)', *Journal of Hand Surgery: European Volume*, 17531934221143500.

[Stirling, P.H.C.](#), [McEachan, J.E.](#), [Rodrigues, J.N.](#) and [Harrison, C.J.](#) (2023) '**Improving the structural validity of the QuickDASH questionnaire: exploratory factor analysis and structural equation modelling in 1798 patients with carpal tunnel syndrome.**', *Journal of Hand Therapy*, March 2023.[no full text available]

[Sullivan, F.](#), [Tello, A.](#), [Rauchhaus, P.](#), [Hernandez Santiago, V.](#) and [Daly, F.](#) (2022). '[Assessment of background levels of autoantibodies as a prognostic marker for severe SARS-CoV-2 infection.](#)', *Journal of Circulating Biomarkers*, 11, pp.24-27.

[Tay Wee Teck, J. B.](#), [Zlatkute, G.](#), [Oteo Perez, A.](#), [Dritschel, H. J.](#), [Ghosh, A.](#), [Potenza, M. N.](#), [Ambekar, A.](#), [Ekhtiari, H.](#), [Stein, D.](#), [Khazaal, Y.](#), [Arunogiri, S.](#), [Torrens, M.](#), [Ferri, M.](#), [Galea-Singer, S.](#), & [Baldacchino, A. M.](#) (2023). [Key implementation factors in](#)



[telemedicine-delivered medications for opioid use disorder: a scoping review informed by normalisation process theory.](#) *The Lancet Psychiatry*, 10(1), 50-64.

Tial, S.V.E. and Dixon, M. (2023) '[Clozapine and aripiprazole-induced neutropenia.](#)' *Progress in Neurology and Psychiatry*, 27(1), pp.9-11.

Tolomeo, S., Baldacchino, A., & Steele, J. D. (2023). '[Blunted expected reward value signals in binge alcohol drinkers.](#)' *The Journal of Neuroscience*.

Topcu G., SavonaVentura C., AyresdeCampos D., Mukhopadhyay S., Messinis I., Mahmood T., Cassar O.A. and Gixti Sultana, S. (2022) '**Provision of antenatal care in Europe - a scientific study commissioned by European Board and College of Obstetrics and Gynaecology (EBCOG).**' *European Journal of Obstetrics and Gynecology and Reproductive Biology*, 272, pp.30-36. [No full text available]

Trail M., Hindley R.G. and Al Jaafari, F. (2022) '**Contemporary surgical management of benign prostatic obstruction: does there remain a place in the toolbox for TURP?.**' *Journal of Clinical Urology*, 15(4), pp.298-303. [No full-text available]

Turner, M., Craighead, F., MacKenzie, J.D. and Aujayeb, A. (2023) '[Day case local anaesthetic thoracoscopy: Experience from 2 district general hospitals in the united kingdom.](#)' *Medical Sciences*, 11(1), 23.

Ul Haq A.E. and Bhaskar, S. (2022) '[Comparing mechanical IOL versus ARM in women with one previous caesarean sections.](#)' *BJOG: An International Journal of Obstetrics and Gynaecology*, Conference. No.EP.0653.

UsherSmith JA, Godoy A, Burge SW, Burbidge S, Cartledge J, Crosbie PAJ, Eckert C, Farquhar F, Hammond D, Hancock N, Iball GR, Kimuli M, Masson G, Neal RD, Rogerson S, Rossi SH, Sala E, Smith A, Sharp SJ, Simmonds I, Wallace T, Ward M, Callister MEJ and Stewart, G.D. (2022) '[The Yorkshire kidney screening trial \(YKST\): protocol for a feasibility study of adding non-contrast abdominal CT scanning to screen for kidney cancer and other abdominal pathology within a trial of community-based CT screening for lung cancer.](#)' *BMJ Open*, 12(9), e063018.

Walker K.G., Shah A.P., Brennan P.M., Blackhall V.I., Nicol L.G., Yalamarthy S., Vella M. and Cleland, J. (2022) '[Scotland's "incentivised laparoscopy practice" programme: engaging trainees with take-home laparoscopy simulation.](#)' *The Surgeon: Journal of the Royal Colleges of Surgeons of Edinburgh and Ireland*.

Wangde F., Ahmed F.S.I., Norris A. and Singh, S. (2022) '[Referral and treatment timeline assessment for endometrial cancer in district general hospital.](#)' *BJOG: An International Journal of Obstetrics and Gynaecology*, Conference. No.EP.1005.

Wangde F., Ahmed F.S.I., Norris A. and Singh, S. (2022) '[Obesity management in women with endometrial cancer in NHS Fife.](#)' *BJOG: An International Journal of Obstetrics and Gynaecology*, Conference. No.PP.0155.

Weir, C. (2022) 'How do we provide women-centred care for the one-in-five women who have a mental health condition? 2. Challenges and next steps', *Practising Midwife*, 25(8), pp.20-24. [No full text available]

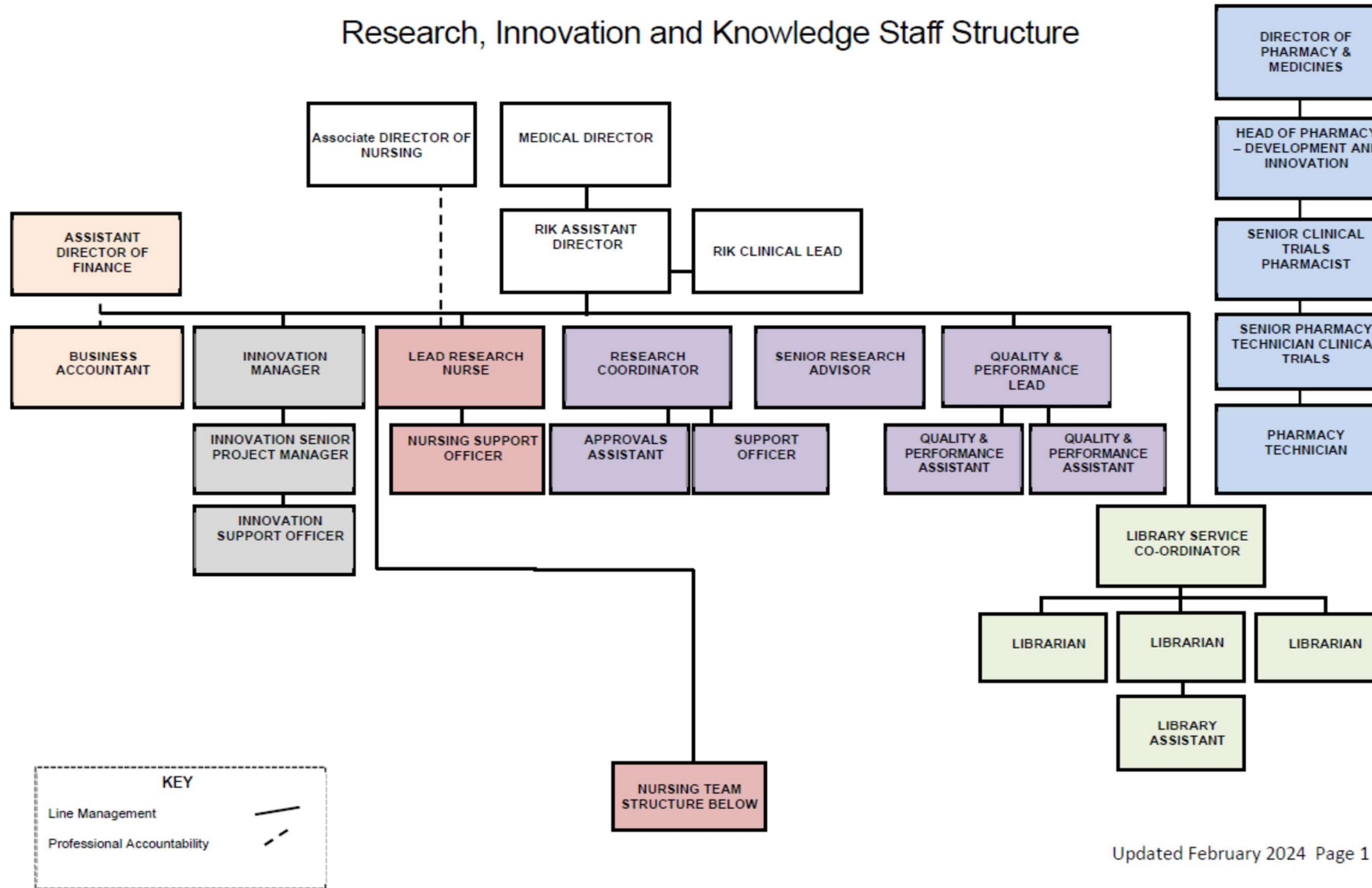
Williams F., Gibbs S. and Addo, A.S. (2022) '[The assessment and management of pica in people with intellectual disability.](#)', *BJPsych Advances*, 28(6), pp.383-392.

Zachariou, M., Arandelovic, O., Dombay, E., Sabiiti, W., Mtafya, B. A. and Sloan, D. J. (2022). 'Extracting and classifying salient fields of view from microscopy slides of tuberculosis bacteria.' In M. El Yacoubi, E. Granger, P. C. Yuen, U. Pal, & N. Vincent (Eds.), *Pattern Recognition and Artificial Intelligence: Third International Conference, ICPRAI 2022, Paris, France, June 1–3, 2022, Proceedings, Part I* (pp. 146–157). (Lecture Notes in Computer Science; Vol. 13363). Springer. [No full text available]

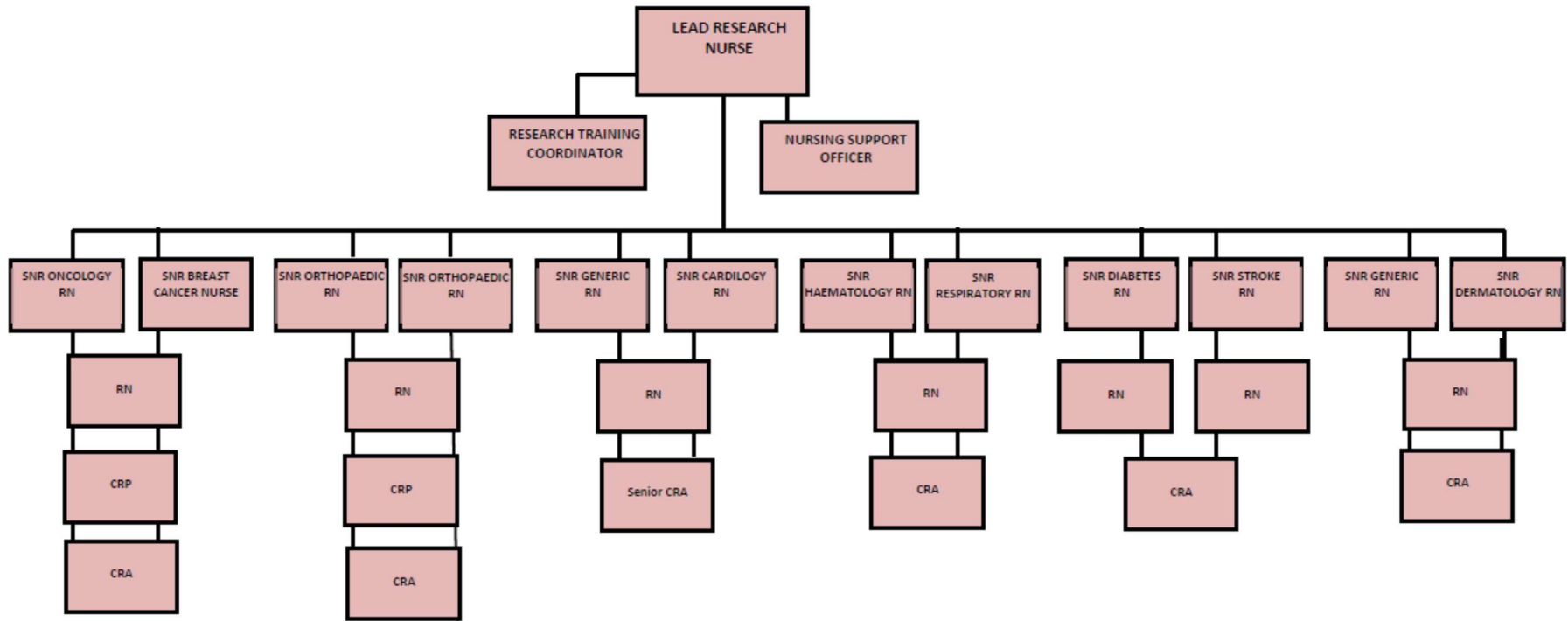


# 19. Appendix 1 – RIK Structure

Research, Innovation and Knowledge Staff Structure



Updated February 2024 Page 1



**KEY**  
 RN: Research Nurse  
 CRP: Clinical Research Practitioner  
 CRA: Clinical Research Assistant

**NHS Fife provides accessible communication in a variety of formats including for people who are speakers of community languages, who require Easy Read versions, who speak BSL, read Braille or use Audio formats.**

NHS Fife SMS text service number 07805800005 is available for people who have a hearing or speech impairment.

To find out more about accessible formats contact:  
fife-.EqualityandHumanRights@nhs.scot or phone 01592 729130

## **NHS Fife**

Hayfield House  
Hayfield Road  
Kirkcaldy, KY2 5AH

**[www.nhsfife.org](http://www.nhsfife.org)**

 [facebook.com/nhsfife](https://facebook.com/nhsfife)

 [@nhsfife](https://twitter.com/nhsfife)

 [youtube.com/nhsfife](https://youtube.com/nhsfife)

 [@nhsfife](https://instagram.com/nhsfife)