



Medicines Optimisation Innovation Centre (MOIC)

Annual Report

2022 – 2023



MEDICINES OPTIMISATION INNOVATION CENTRE (MOIC)

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Context

The Regional Medicines Optimisation Innovation Centre (MOIC) aims to work towards better patient outcomes by initiating, developing and sharing best practice with regards to medicines use. This is achieved via the following primary activities:

1. Developing a systematic approach to finding and testing solutions for Health and Social Care (HSC).
2. Combining strengths in clinical pharmacy, pharmacy practice, research and service development with technology and business acumen.
3. (a) Developing a medicines optimisation network, linking with the HSC and other life science networks and innovation centres in Northern Ireland (NI) and Europe.
(b) Support knowledge sharing both with the HSC and wider networks and the development of collaborative working partnerships and joint working arrangements between participants.

MOIC Work streams

In addition to work around infrastructure, communications & marketing, MOIC activity is split across four work streams, namely to:

- Focus on the needs of patients and the NI population.
- Accelerate the adoption of innovation into practice to improve clinical outcomes and efficiency.
- Build a culture of partnership and collaboration.
- Make a meaningful contribution to the NI economy.

This report will describe the key achievements in these areas during 2022/2023.

Staff, Infrastructure, Communications & Marketing

A team of Programme Managers are key to the functioning of MOIC. During the year, three Programme Managers were on maternity leave and a number of temporary Programme managers have been in post. In order to assist with building a cadre of skilled researchers within the pharmacy workforce, the MOIC Board approved a business case to part-fund a consultant pharmacist at the Western Health & Social Care Trust (WHST). The individual was appointed as a respiratory consultant pharmacist and MOIC part funding concluded in October 2022. The individual has maintained her position as a consultant pharmacist and as such spends 25% of her time working on research and service development activities. Her links with MOIC have continued.

MOIC continues to benefit from the skills of a Communications Manager (0.6WTE). The substantive post holder had a 6 month secondment during the year, during this time the role was undertaken by a temporary member of staff. Work has continued on keeping the MOIC website updated and a bi-monthly newsletter has been introduced. MOIC continued to engage with social media, including



growing its audience on Twitter (now 1300 followers). This assists in terms of communicating with a wide audience.

Where possible, the MOIC team have attended conferences and workshops to assist with the promotion of MOIC. In addition, results from specific projects have been disseminated through a variety of means including the publication of papers, video presentations, attendance and presentations at a range of conferences, website and Twitter. A list of publications, reports and presentations is included in Annex A.

Focus on needs of patients and Northern Ireland population

Staff in MOIC have continued to work on a range of projects aimed at optimising medicines use and on maximising skill mix in order to ensure the best possible outcome from medicines use.

In Primary care, we continue to work with the Strategic Planning and Performance Group (SPPG) to evaluate new services that are being developed. Details of these evaluations are below:

- A new service for the treatment of uncomplicated lower urinary tract infections (UTIs) in women aged 16 to 64 years was piloted in community pharmacy. Under this service, eligible patients visited their community pharmacy, rather than their GP practice, for the treatment of UTI symptoms. If indicated, antibiotics were prescribed by an independent prescribing pharmacist or supplied under a patient group direction. MOIC led on the evaluation of the pilot. During the reporting period the final report was completed and submitted to SPPG.
- Within NI, transformation funding was awarded to the SPPG in order to scope and establish new models of prescribing by non-medical prescribers. By establishing these new models it is hoped that service users will be able to obtain their required medications in a more efficient and timely fashion. MOIC sat on the Steering Group for this initiative and assisted in the evaluation of projects in the areas of physiotherapy, heart failure, dietetics and mental health. Final reports for all areas have now been completed and work has commenced on preparing papers for publication.
- SPPG have launched a new service for the provision of emergency hormonal contraception through community pharmacy. MOIC are assisting with the evaluation of this new service.

MOIC have been working with a number of colleagues across NI in the area of cardiovascular disease.

Funding was obtained from AstraZeneca to pilot the establishment of a cardiometabolic pharmacy service within the Western Health and Social Care Trust. A cardiometabolic pharmacist conducted outpatient reviews for those at risk of cardiometabolic diseases. These reviews aimed to increase adherence to medicines that prevent and delay disease progression. In addition, the reviews identified patients suitable for those therapies recommended by the European Association for the Study of Diabetes and the American Diabetes Association (EASD/ADA) guidance. A total of 247 patients were reviewed by the cardiometabolic pharmacist. After initial screening, 98 of these patients were invited for a medication review in a clinic setting by the cardiometabolic pharmacist.



Following medication review 32 were commenced on a sodium glucose co-transporter 2 inhibitor (SGLT2i). This project provided an exciting opportunity for service development and proved to be a success in developing the role of the pharmacist within cardiometabolic disease. It is anticipated that the results from this project will be utilised to further develop the case for a cardiometabolic pharmacist within each of the HSC Trusts in NI.

In the Southern Health and Social Care Trust, funding was obtained from AstraZeneca to undertake work with the cardiology team and primary care colleagues to establish, deliver and evaluate virtual heart failure clinics. The virtual heart failure clinics commenced on April 2022. An interim analysis was carried out at 6 months (November 2022) and summarised the number and type of sessions delivered, the number of attendees and case numbers, the characteristics of referrals, clinical outcomes and qualitative reports on the outcomes from the HFVC including clinician knowledge and confidence. Full analysis is planned at 12 months as part of the evaluation.

A series of workshops were carried out between December 2021 – March 2022 to explore how information provided by a clinical dashboard (Diabetes Care Dashboard - Apollo), developed by AstraZeneca could be used to identify patients who could be eligible to use digital tools to self-monitor and improve patient management in both primary and secondary care. Workshop participants came from the Southern Health and Social Care Trust, Belfast Health and Social Care Trust, the Connected Health Innovation Centre and Ulster University. A final report (June 2022) summarised the 3 workshops, and provided a list of key themes which could form the basis of a larger project to assess the utility and implementation of the Apollo system or other tools for the identification of patients with Heart Failure and Type 2 Diabetes.

At the start of the pandemic, the demand for personal protective equipment (PPE) for HSC staff grew at an unprecedented rate. MOIC worked closely with BSO PaLS and became the lead for technical assessment of offers of PPE regionally. Once MOIC had validated the essential documentation relating to products to ensure that the applicable standards had been met, BSO PaLS completed the procurement due diligence tasks to permit purchase of the products. During 2022/23 MOIC have continued to work in this area. Members of the team contributed to the UK Government Transparent Face Mask Specification and subsequently completed an assessment of these masks for the HSC in NI. This included a review of the CE marking in the context of the unique position that Northern Ireland holds in relation to EU requirements.

The COMET study is led by researchers in The Netherlands and is being run in the NHSCT with the support of both pharmacy and MOIC staff. The study uses pseudonymised data from patients hospitalised with COVID-19 to establish if certain medications affect clinical outcomes in those with COVID-19. During the year data for a 1-year follow up of the initial patient cohort was collected in the NHSCT. This data is currently being analysed.

During 2021/22 the NHSCT pharmacy team obtained funding to pilot the role of an independent prescribing pharmacist within a Community Mental Health Team (CMHT). MOIC assisted with the evaluation of this service. During the 6-month pilot, the independent prescribing pharmacist developed a weekly clinic, primarily for patients with anxiety and depression, which focused on medicines optimisation. In addition, the pharmacist delivered education sessions to the CMHT and MOIC staff members. Given the success of this pilot a clinic for patients with difficult to treat anxiety



and/ or depression has continued within the Trust. During the year a paper related to this has been accepted for publication and this is expected to be published later in 2023. In addition, an application has been made for permanent funding for this service.

Accelerate the adoption of innovation into practice to improve clinical outcomes and efficiency

During the year, work continued with Healthcare Analytics to develop the tagging and tracking of medical equipment. Work has been on-going within the NHSCT to optimise the software and to add devices from clinical engineering to the system (e.g. infusion pumps). A prioritised list for equipment additions is being prepared. Building upon the system, work with regards to a reusable gown is being considered with a company in Galicia. Additionally a proof of concept project was completed on a Bluetooth Low Energy (BLE) non touch thermometer developed by a local company (Trimedika). This was funded by the Armagh/ Banbridge/ Craigavon Council from the UK levelling up fund. The project tested if the thermometer could interface with the system and assessed user satisfaction with the device. Both results were positive and a final report was prepared.

Work continued between the team at MOIC and a QUB spin out company (Continga Limited) to trial a novel system for improving medicines adherence in those with respiratory diseases. Using the system, clinicians can observe their patients as they use inhaled medication with a view to improving how such devices i.e. inhalers are used. A quality improvement pilot for use of this technology with adult asthma patients in the Western Health and Social Care Trust has been completed and a final MOIC evaluation report compiled. A manuscript is currently being prepared for submission to an academic journal. The project found that the v-DOT technology was a feasible method of assessing inhaler technique and monitoring adherence in a small group of adult asthma patients managed in an outpatient setting. A range of positive impacts for patients and clinicians were reported. A number of unexpected technical challenges were experienced and resolved and it was concluded that resource and clear communication channels are required to support this innovative approach to asthma management. A second phase project is being planned in patients with allergic rhinitis in Western Health and Social Care Trust. It is hoped that this will start later in 2023.

Build a culture of partnership and collaboration

MOIC continue to work with a range of collaborators from across the world. Activity includes:

- Collaborating in order to apply for large funding grants.
- Attending conferences and events in order to promote MOIC.
- Contributing to the organisation of conferences.
- Building international partnerships to aid knowledge translation and hosting.

In 2019 funding for the iSIMPATY project was awarded to a collaborative group from the Scottish Government, the HSE in Ireland and MOIC. A total of Euro 3.5 million was awarded (Euro 915K for NHSCT) by the Interreg programme. (Interreg is a series of programs designed to stimulate cooperation between regions in the European Union, funded by the European Regional Development Fund). The project trialled the use of pharmacy led medicine use reviews in all three jurisdictions. Clinical pharmacists in the NHSCT undertook the project. They worked closely with pharmacy and medical colleagues to identify and review the medicines of patients on polypharmacy.



Their time working on the project finished on 31.3.23. Across the project, a total of 6481 reviews were delivered with 1905 of these delivered in Northern Ireland. As part of the project a training programme for wider health care professional was developed and accredited. To date 212 health care professionals have been trained (110 in Northern Ireland). Additionally 244 final year undergraduate students from both Queen's University and the University of Ulster received training. During the year 2 shared learning events were held in June and November respectively and a pharmacist workshop was held in February 2023. A successful closure event for the project was held in March 2023. At this stage final data analysis is being completed and a final report for the project is anticipated later in 2023.

MOIC is one of the 36 partners from across Europe in the SHAPES Project (Smart and Healthy Ageing). The project is funded by the EU under the smart and healthy living at home (Horizon 2020) workstream. This project is led by Professor MacLachlan, Director of the Assisted Living and Learning (ALL) Institute in Maynooth and was awarded a total of Euro 21million (Euro 572K was awarded to the NHSCT). In Northern Ireland, progress has been made on the Medicines Optimisation and Control pilot for which MOIC is the lead. Following mock-up and user acceptability testing (Phases 1-4), ethical approval for the full pilot (Phase 5) was obtained. Recruitment to the full pilot (Phase 5) has closed at 4 participants and this phase is expected to end in June 2023.

During the year a new grant application was submitted to the Rosetree foundation along with colleagues in Ulster University. The application considered the use of pharmacogenomic information in prescribing decisions. Unfortunately the application was unsuccessful, however the team are using the feedback to explore other funding options. Linked to this we have supported Ulster University in their application for funding to develop a course in pharmacogenomics informed prescribing.

The WHO Global Patient Safety Challenge on medicines safety aims to reduce medicines related harm by 50% over a 5 year period. At a regional level MOIC continued to sit on the regional groups that are leading in this area. These groups aim to ensure that NI meets the WHO global challenge and this includes supporting a range of research and service development projects. An ADEPT fellow completed her term at the Northern Health & Social Care Trust in August 2022 and the focus of her work was on addressing the WHO challenge. Her Fellowship was jointly supervised by Medical Education and MOIC.

Also linked to the WHO Global Patient Safety Challenge, MOIC is continuing to link with colleagues in the Institute for Healthcare Improvement (IHI) to consider a learning collaborative approach to medicines safety. A workshop was successfully delivered remotely at the IHI Forum in December 2022. An application for a workshop at the International Forum in May 2023 was successful and this will be delivered in person in Copenhagen.

Medicines safety and medicines optimisation can be impacted by medication adherence. EU COST Actions (Co-operation in Science and Technology) are interdisciplinary research networks which bring researchers and innovators together to explore a topic of interest. MOIC are members of the ENABLE COST Action (**E**uropean **N**etwork to **A**dvance **B**est practices & technology) on medication adherence. This action includes over 100 people from 39 countries and it aims to:

- raise awareness of adherence enhancing technological solutions,
- foster and extend multidisciplinary knowledge on medication adherence at patient, treatment and system levels,
- accelerate translation of this knowledge to useful clinical application,
- work collaboratively towards economically viable implementation of adherence enhancing technology across European healthcare systems.

MOIC attended the first meeting of this group in May 2022 and are contributing to the Current Practices and Adherence Technology Working groups.

As detailed last year, MOIC are keen supporters of knowledge translation. In previous years knowledge translation has been supported via the hosting programme. Whilst hosting visits have not been possible over the past year a range of international partnerships and collaborations have continued to be developed including:

- Work has continued under the Memorandum of Understanding (MoU) between MOIC and the Polish Society of Clinical Pharmacy in order to share learning and drive enhanced pharmacy services throughout Europe. The Ministry of Health in Poland has established a number of working groups to progress medicines optimisation in the country. MOIC is working with colleagues in Wroclaw to assist in delivering a medicines optimisation pilot in the hospital setting. A PhD student is carrying out a project in this area and patients have been recruited to her study. MOIC are also contributing to a symposium on clinical pharmacy in Poland which will be delivered in Autumn 2023.
- MOIC have worked with colleagues to develop a Position Paper on clinical pharmacy in Central and Eastern Europe. NI has been included as an example of best practice. This paper has been submitted for publication.
- MOIC have agreed a MoU with the Commonwealth Pharmacists' Association to consider collaboration opportunities to share learning and support the introduction and evaluation of clinical pharmacy and antimicrobial stewardship activities in Commonwealth countries.
- MOIC staff have been working with representatives of the Tanzanian Institute of Pharmaceutical Care. A MoU with the Bugando Medical Centre was signed and launched in November 2022 with a view to aiding the introduction of medicines optimisation initiatives, including clinical pharmacy and Antimicrobial Stewardship (AMS) in Tanzania. Related to this, MOIC has worked with Northumbria Trust and Northumbria Bright Charity and their network of colleagues across Tanzania. A number of resources have been shared and collaborative working in the areas of clinical pharmacy, medication review and antimicrobial surveillance are being explored. MOIC partnered with Northumbria Trust in a CWPAMS funding application to improve medicines optimisation and AMS across Tanzania. The application was successful and the project will commence in May 2023.
- Sonja Guntschnig from Austria first visited the NHSCT under the hosting programme in 2019. Based on her learning she is now developing antimicrobial stewardship programmes within her hospital & region. Linked to this, she is undertaking a PhD under the supervision and mentorship of UU and MOIC. Sonja has presented some initial findings at the FIP and ESCP conferences.



- A Masters student (Michael Tadros) from Misr University for Science and Technology (MUST) in Egypt completed a project evaluating the impact of the COVID-19 pandemic on antimicrobial prescribing and resistance patterns in secondary care.
- Professor Scott has been working with Anita Tuula, a PhD student based at the University of Tartu in Estonia. Her thesis is examining medicines use reviews with a focus on older people and polypharmacy in community pharmacy settings.
- MOIC are working with two PhD students at the University of Oslo. The first is exploring the co-design of seamless person-centered interventions to optimize medication use across healthcare levels and is being undertaken by Malin O. Syversen. Mikas Glatkauskas is undertaking work to explore the innovation of a sustainable healthcare service for patients with multiple long-term conditions.

Make a meaningful contribution to the Northern Ireland economy

MOIC are the HSC lead in the Health & Social Care Industry Partnership (HSCIP). The partnership aims to deliver ‘triple win’ benefits to patients, the service and the economy through more rapid and consistent patient access to innovation, more effective use of HSC resources and increased cross-sector research collaboration. The first challenge to be addressed by the HSCIP was the eradication of Hepatitis C in NI and MSD was selected as the industry partner for this work. During the year work on the contracting and governance arrangements was progressed with MSD and it is anticipated that the project will start in May 2023. The second call under the partnership is in the area of Heart failure. At this stage an invitation to respond to the challenge has been sent to ABPI colleagues and they are asked to submit applications to the partnership in April 2023. In the coming year, a number of areas have been identified for consideration by the partnership namely: diabetes, cancer and dementia.

The Innovation for Active and Healthy Ageing (IN-4–AHA) built upon the work undertaken by the European Innovation Partnership on Active and Healthy Ageing (EIP - AHA). MOIC was a member of this network and participated in activities and building partnerships including identifying opportunities for potential funding bids. The final meeting for this partnership was held in December 2022 and this project is now closed. However, MOIC worked closely with the DH to renew the reference site status for NI and were delighted to be awarded the maximum available rating of four stars. MOIC were represented at the award ceremony in Brussels which was attended by some 120 people from over 60 reference sites. Following a cross-Departmental visit to Flanders in February 2023, MOIC is working with DH colleagues to explore opportunities for collaboration in this Region and to showcase our work in key European Networks e.g. EUREGHA.

Through links made by working with the IN-4–AHA group, discussions were started with the Cluster Saud de Galicia (CSG). MOIC hosted a successful CSG Learning Expedition to NI in May 2022. The aim was to find partners within NI that could lead to successful collaborations and business relationships between the members of CSG delegation and local companies. MOIC liaised with InvestNI to develop the programme to showcase innovation and facilitate introductions to the NI Health and Life Sciences Ecosystem. A MoU between MOIC and CSG was signed during the visit. A return Learning Expedition to Galicia was held during October 2022 to coincide with two major



networking/enterprise events in Galicia. Companies from both NI and Ireland attended in addition to representatives from Health Innovation Hub Ireland, MOIC and DH. Follow up meetings are being progressed.

MOIC participated in two bilateral events with the regions of Andalusia and Madrid. Follow up meetings to explore potential partnerships and collaborative projects have been held with 2 companies namely, Spirit and Cognitant. Spirit are developing digital enablement tools for use in the respiratory area whilst Cognitant are working on the provision of information prescriptions which can be used by health care professionals during consultations.

Health Innovation Hub Ireland (HHI) works across the health sector in Ireland with businesses to solve problems and improve patient care. A MoU has been established with the HHI and a formal launch of this is anticipated in 2023. It is hoped that under the MoU we can work collaboratively with companies in the development of new healthcare technologies, products and services to benefit the health of the population. This will include collaboration on potential funding applications to relevant Peace Plus themes. HHI and two associated companies attended the Learning Expedition to Galicia and further collaborations are currently being explored.

Peace Plus is a new funding programme which will support peace and prosperity across NI and the border counties of Ireland. MOIC have continued to work with colleagues in both regions, including those at policy level to help inform the development of this programme. Medicines management has been identified as a key area for funding under theme 4 (Healthy and Inclusive Communities) of Peace Plus. MOIC have been working with a range of partners including those in the Co-operation and Working Together (CAWT) Group on a number of funding concept notes. These concept notes were submitted to the funding body (SEUPB) in February 2023.

Under theme 6 (Building and Embedding Partnership and Collaborations), further discussions have been held with SEPUB and colleagues in Ireland regarding the establishment of a MOIC in Dundalk.

MOIC continue to work with Invest NI and are an Invest NI Knowledge Partner. During the year, MOIC completed a final report for 21 Omnicare (previously O'Neills). Using Invest NI funding, a trial of a reusable surgical gown with RFID tag was successfully carried out in Antrim Area Hospital to collect user feedback which will assist in further design and development of the product.

Personal and Public Involvement (PPI)

MOIC is endeavouring to ensure that PPI embedded across the work programme. During the year a PPI representative joined the MOIC Board.

Major grant applications have PPI and user representatives embedded within work programmes, for example the SHAPES consortium has 6 partner organisations representing the user perspective. In addition, there are three strands of activities aimed at promoting communication with older individuals, caregivers and care providers namely: a co-creation think tank, awareness campaigns and dialogue workshops. The Co-creation Think-tank for European Integrated Care aims to foster an open and creative discussion forum to generate a common understanding of the SHAPES vision, concepts and work. MOIC is a member of the Think-tank and contributes via participation in workshops as a representative of the health and care industry. MOIC have



contributed to the awareness campaigns by producing video footage to promote the project. MOIC have contributed to the awareness campaigns by producing video footage to promote the project. The videos can be found at <https://youtu.be/2FENYgx6TUA> and <https://youtu.be/spPv6UfArSM>. In 2021/22 MOIC participated in the dialogue workshops via presentations made by Prof Scott at the 2nd dialogue workshop “Integrated care models” and Dr Martin at the 5th dialogue workshop “Beyond the pilots: Upscaling and transfer of person-centred digital solutions in integrated care pathways in Europe”. The SHAPES project is focused on helping service users live longer in their own homes using technology. In the pilot that NHSCT are leading, there are 4 different use cases investigating different digital solutions in older adults with chronic conditions. Each use case is made up of 5 phases, within phases 2-4, service users have been actively involved in testing mock-ups, hands-on experiments, small scale and full scale demonstrations. Throughout the entire piloting process feedback has been continually sought and acted upon to tailor these digital solutions so that they are user-friendly, functional, useful and desirable to the service user.

The iSIMPATY project is focused on the delivery of patient centred reviews. The iSIMPATY Board oversees the running of the project and Irene Oldfather from Health and Social Care Alliance Scotland is the PPI representative on this Board. As part of the project, shared learning events are held regularly and these always include session from patient representatives. The project website (<https://www.isimpathy.eu/>) has a full section devoted to patients and includes a range of resources including animations aimed at improving understanding of medicines use and medicines use review. Service users and their carers’ have been involved in creating feedback videos and animations to highlight the benefits of receiving medicines reviews under the iSIMPATY programme.

Financial report 2022/2023

The Medicines Optimisation and Innovation Centre has reported an overall surplus of £3k and has £394k of deferred income from commercial funding carried forward into 2022/23. An income and expenditure report is included in Annex B.

Annex A: MOIC publications, presentations and reports 2022.23

Papers & publications

Brown, J., Hogg, A., Scullin, C., Fleming, G. and Scott, M., 2022. 7-Steps medication reviews: analysis of medicine changes in acute medical wards. *International Journal of Pharmacy Practice*, 30(supplement 2), pp.ii7–ii8. <https://doi.org/10.1093/ijpp/riac089.007>.

Doherty, A. S., Adamson, G., Mallett, J., Darcy, C., Friel, A., Scott, M. G. and Miller, E. R., 2022. Minding the gap—an examination of a pharmacist case management medicines optimisation intervention for older people in intermediate care settings. *Research in social & administrative pharmacy: RSAP*, 18(9), pp.3669–3679. <https://doi.org/10.1016/j.sapharm.2022.03.015>.

Odeh, M., Al-Taani, G.M., Doherty, L.C., Scott, M.G. and McElnay, J., 2022. The Impact of Drug Burden Index on Unplanned Hospital Readmission and Length of Hospital Stay. *Advances in Pharmaceutical Sciences*, 1, 656. <https://doi.org/10.55085/aps.2022.656>.

O'Neill, K., Fleming, G., Scott, M.G., Plant, G. and Varma, S., 2022. C-Reactive Protein Point of Care Testing in Community Pharmacy: Observational study of a Northern Ireland Pilot. *Pharmacy Practice*, [online], 20(4), pp.1-10. Available at: <https://pharmacypractice.org/index.php/pp/article/view/2711>.

Syafhan, N., Donnelly, R., Harper, R., Harding, J., Mulligan, C., Hogg, A., Scott, M., Fleming, G. et al., 2022. Adherence to metformin in adults with type 2 diabetes: a combined method approach. *Journal of Pharmaceutical Policy and Practice*, 15(1), 61. <https://doi.org/10.1186/s40545-022-00457-5>.

Urbańczyk, K., Wnęk, P., Roleder, T., Witkiewicz, W., McCague, P., Scott, M. and Wiela-hojeńsk, A., 2022. Optimized and cost-effective pharmacotherapy of vascular surgery patients: evaluation of clinical pharmacy service. *Italian Journal of Vascular and Endovascular Surgery*, 29(2), pp.74-79. <https://doi.org/10.23736/S1824-4777.22.01534-0>.

Reports

Medicines Optimisation Innovation Centre (MOIC). (June 2022). *Investigations into the Apollo system for identification of patients with Heart Failure & Type 2 Diabetes*. Produced for project team (MOIC and Northern Ireland Connected Health Innovation Centre).

Medicines Optimisation Innovation Centre (MOIC). (August 2022). *Anze Reusable Surgical Gown: MOIC Review and Feedback Report*. Produced for 21 Omnicare.

Medicines Optimisation Innovation Centre (MOIC). (August 2022). *Evaluation of New Models of Prescribing (NMOP): Dietitian led direct ordering of oral nutritional supplements for care home residents*. Produced for Strategic Planning and Performance Group.

Medicines Optimisation Innovation Centre (MOIC). (September 2022). *An Evaluation of New Models of Prescribing (NMOP): A Heart Failure Nurse Specialist Prescribing Pilot*. Produced for Strategic Planning and Performance Group.



Medicines Optimisation Innovation Centre (MOIC). (September 2022). *An Evaluation of Pharmacy First UTI Pilot Service: Pharmacy First for Uncomplicated Lower Urinary Tract Infections (LUTIs) in women aged 16 to 64 years*. Produced for Strategic Planning and Performance Group.

Medicines Optimisation Innovation Centre (MOIC). (September 2022). *DIH-TriMedika study: A pilot study evaluating use of the connected TRITEMP prototype device within the nursing workflow*. Produced for TriMedika.

Medicines Optimisation Innovation Centre (MOIC). (October 2022). *Final report Inversed LEX Northern Ireland-Galicia*. Produced for project team (MOIC and Cluster Saude de Galicia).

Medicines Optimisation Innovation Centre (MOIC). (November 2022). *An Evaluation of New Models of Prescribing (NMOP): Mental Health Home Treatment Team*. Produced for Strategic Planning and Performance Group.

Medicines Optimisation Innovation Centre (MOIC). (November 2022). *Heart Failure Joint Working Project. Interim project report*. Produced for Strategic Planning and Performance Group. Produced for project team (MOIC, SHSCT, ECHO and AZ).

EVENTS organised or jointly organised by MOIC

MOIC-Cluster Saude de Galicia (CSG) Learning Expedition to Northern Ireland (24-27 May 2022): A delegation of 10-12 representatives from the Galician Ministry of Health, Galician Ministry of Innovation, Galician Ministry of Social Affairs, healthcare industry/tech companies and CSG senior management participated in a learning expedition to Northern Ireland. The aim was to learn more about the NI Health and Life Sciences Ecosystem and find partners within NI that could lead to successful collaborations and business relationships. The programme included a Launch Event at Invest NI on 24 May and several site visits and meetings across NI.

MOIC-Cluster Saude de Galicia (CSG) Learning Expedition to Galicia (24-28 October 2022): A delegation of 8 representatives from NI and the Republic of Ireland participated in a Learning Expedition to Galicia in October 2022. The expedition was organised by MOIC and Cluster Saude de Galicia, CSG (Galician Health Cluster) and included a number of visits to research and innovation groups, foundations, social care providers and public administrators and also two international events, EXPORPYMES and VII Forum RIES 2022. The delegation included representatives from the Department of Health, HIHI and HealthTec companies. The expedition aimed to strengthen collaborations further to the MOIC-CSG MoU and explore new collaborations and partnerships for future projects and business opportunities.



Other activity

iSIMPATY Team: *Hospital pharmacy team of the year- runners up.* NI Healthcare awards, 28 April 2022.

Brown, J. *What matters to me – a pharmacist’s view.* (Opinion piece), Carers Alliance. July 2022.

iSIMPATY team *Northern Stars awards – runners up Integrated Care category.* NHSCT, 22 September 2022.

Conference presentations and posters

Authors/Presenter	Title	Poster or Oral	Conference/Meeting
Fleming, G.	<i>Medicines optimisation- what's it all about?</i>	Oral	25 th Annual meeting of the Scottish Cardiovascular Forum, University of Ulster. 07 May 2022.
Scott, M.	<i>Medicines Optimisation Innovation Centre</i>	Oral	MOIC-Cluster Saude de Galicia (CSG) Learning Expedition, Invest NI. 24 May 2022.
Scott, M.	<i>Medicines Optimisation Innovation Centre</i>	Oral	MOIC-Cluster Saude de Galicia (CSG) Learning Expedition, QUB. 24 May 2022.
McCourt, O.	<i>Patient Centred Medication Review: ICU Step-down patients.</i>	Oral (video)	NIMDTA. May 2022.
Hogg, A.	<i>7-STEPS Medicine Review</i>	Oral	SHSCT Heart Failure virtual clinic, online. 29 June 2022.
Hogg, A.	<i>iSIMPATY</i>	Oral	Commonwealth Pharmacists' Association General Assembly, online. 25 July 2022.
Hogg, A.	<i>The Northern Ireland Medicines Optimisation Innovation Centre</i>	Oral	HSE Medication Safety Symposium, online. 15 September 2022.
Guntschnig, S., Abuelhana, A., Courtenay, A. and Scott, M.	<i>Clinical pharmacy interventions and antimicrobial therapy in a rural hospital in Austria.</i>	Poster	FIP, Seville. 18-22 September 2022.

Scott, M	<i>iSIMPATY</i>	Oral	Circle Research Group at University of Oslo 17 October 2022.
Brown, J., McGread, C., McCourt, O., Hutchinson, W., Scullin, C., Fleming, G. and Scott, M.	<i>The impact of polypharmacy medication reviews in hospital patients.</i>	Oral	ESCP 2022 Symposium. 19-21 October 2022.
Brown, J., Houghton, R., McGread, .C, McCourt, O. and Jack, I.	<i>Psychology training for enhanced pharmacy polypharmacy reviews.</i>	Poster	ESCP 2022 Symposium. 19-21 October 2022.
Brown, J., McGread, C., McCourt, O., Hutchinson, W., Houghton, R., Jack, I. and McCague, P.	<i>An evaluation of polypharmacy workshops for undergraduate pharmacy students.</i>	Poster and Oral	ESCP 2022 Symposium. 19-21 October 2022.
Brown, J., Scullin, C. and Hogg, A.	<i>7-steps medication review – analysis of medicine changes in acute medical wards.</i>	Poster	RPS conference.11 November 2022.
Gormley, C., Kelly, M., Moore, M., Sharkey, R., Spargo, M. and Fleming, G.	<i>Consultant respiratory pharmacist input to COVID-19 Respiratory Support Unit - An Evaluation.</i>	Poster	Irish Thoracic Society Annual Scientific Meeting, Naas, Ireland. 02 December 2022.
Hogg, A., Scott, M. and Smyth, G.	<i>Medicines Optimisation – A change package to support Medicine Without Harm.</i>	Oral	IHI Forum, Online.13-15 December 2022.

Brown, J. and iSIMPATY project pharmacist team.	<i>iSIMPATY implementation and results to date.</i>	Oral	Journal Club, ESCP. December 2022.
Brown, J.	<i>Medication reviews in hospital.</i>	Oral (video)	RPS best practice hub. January 2023.
Brown, J. and Scullin, C.	<i>iSIMPATY medication reviews.</i>	Oral (video)	QI across Team North, 16 March 2023.
Brown, J., Hogg, A., Scullin, C., Fleming, G. and Scott, M.	<i>Analysis of the sustainability of stopped medicines one year post medication review.</i>	Poster	AICIC, Dublin. 23 March 2023.
Huey, R., Goudy, C. and Scott, M.	<i>Development of a pharmacy led technical assessment pathway for personal protective equipment.</i>	Poster	27 th EAHP Congress, Lisbon, Portugal. 22-24 March 2023.

Medicines Optimisation and Innovation Centre

Income and Expenditure position at 31st March 2023

	Deferred Income c/f	Income from other Sources 2022/23	Total Deferred Income 22/23	Transfer from Balance Sheet to MOIC	Deferred Income Carried Forward	DOH Funding	Other Income	Transfer from Balance Sheet to MOIC	Total Expenditure	Closing Balance
	£000's	£000's	£000's	£000's	£000's	£000's	£000's	£000's	£000's	£000's
Projects	- 507	- 133	- 640	246	- 394		- 20	- 246		- 265
Core						- 797			1,059	262
Total	- 507	- 133	- 640	246	- 394	- 797	- 20	- 246	-	- 3

Deferred Income c/f to 2023/24 - 394

Surplus - 3

**Medicines Optimisation and Innovation Centre Income & Expenditure
as at 31st March 2023**

	Project	As at 31st March 2023	Deferred Income
Deferred Income as at 1st April 2022			
			- 507,131
2022/23			
SPPG		- 726,954	
PHA	Research & Development Programme Manager	- 70,090	
External Funding			
	EU Shapes		
	Isimpathy		- 105,652
	IKSUS		- 4,713
	QUB		- 5,000
	GALACIA		- 9,039
	OMNICARE		- 8,292
	Armagh City, Craigavon & Banbridge Council	- 14,612	
	Invest NI	- 5,000	
	Transfer from Balance Sheet Isimpathy / Shapes	- 245,665	245,665
Total Income as at 31st March 2023		- 1,062,321	- 394,162
Expenditure as at 31st March 2023			
MOIC Costs			
	Staffing Costs	1,024,410	
	Non pay Costs	34,658	
Total Expenditure as at 31st March 2023		1,059,067	-
Surplus		- 3,253	- 394,162
	Deferred Income as at 31st March 2023	- 394,162	
	Net Surplus as at 31st March 2023	- 3,253	

