

# A Guide to Developing the role of Consultant Pharmacists in Northern Ireland



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# **Foreword** by the Chief Pharmaceutical Officer

In Health and Wellbeing 2026 - Delivering Together, the Department of Health made clear the objective to further develop the talent and skills of the entire workforce to help ensure that patients receive the highest standard of care. The introduction of Consultant Pharmacist posts into the HSC in Northern Ireland, is an important step towards achieving this goal.



**Prof. Cathy Harrison** 

Consultant Pharmacists are clinical experts, working at a senior level with other senior clinicians and colleagues in the care of patients. As leaders in their therapeutic area and profession, their role involves both education and research and they work to improve the delivery of care and drive change across the healthcare system.

The Pharmacy Workforce Review (PWR) report, published in 2020, outlines the HSC pharmacy workforce needs over the next ten years. One of the PWR report's recommendations is that 'Further development of the Consultant Pharmacist programme should be implemented to ensure the ongoing provision of clinical leadership across all pharmacy sectors.'

To take this forward a review was completed with objectives to; analyse the current consultant pharmacist pharmacy workforce in Northern Ireland, describe a workforce model to support HSC transformation, and make recommendations regarding the future direction of travel, taking into consideration new NI health strategies.

The review produced this report as a guide to developing Consultant Pharmacists in Northern Ireland. Its recommendations seek to support a consistent approach to the introduction of these important senior clinical pharmacy roles within and across HSC organisations.

Consultant pharmacists are experts in their area of specialism and make a significant impact to medicines optimisation and to clinical governance. They are role models and help inspire other healthcare professionals, their peers, and tomorrow's pharmacists.

I am committed to the implementation of the Pharmacy Workforce Review 2020 and the delivery of reforms that will enable the skills and expertise of pharmacy teams in all sectors of the HSC to be fully utilised and recognised for the significant advances they bring to improving patient health care.

I wish to give my thanks to Dr Anne Friel for her leadership and the members of the Task and Finish Group and our Consultant Pharmacists for their input to the report and the recommendations presented within.

Professor Cathy Harrison

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Chief Pharmaceutical Officer for Northern Ireland

# 1.0 Background

Medicines are the most common medical intervention used in the health service, with 70% of the population taking prescribed or over-the-counter medicines to treat or prevent ill health. [1] Whilst medicines' use is an essential component for maintaining health and treating illness, there is evidence that not all medicines' use is optimal. For example, it is estimated that 1 in 15 hospital admissions are medicines-related[2] and that every year in Northern Ireland, avoidable medication errors consume 5500 bed days, costing Health and Social Care (HSC) services £1.9m. [3]

The World Health Organization recognises the potential harm from medication use and has launched the 3rd Global Patient Safety Challenge 'Medication without Harm'.[4] This report focusses on three themes; high risk situations, transitions of care and polypharmacy. In response to this challenge the Department of Health in Northern Ireland has produced an Action Plan[5] aimed at improving medication safety. This builds upon the Medicines Optimisation Quality Framework[6] within which the key aim is to maximise health gain for patients through the appropriate, safe and optimum use of medicines.

Pharmacists are experts in medicines and as such are ideally placed to promote medicines optimisation so that the population gains the best possible outcomes from medicines use.

The Northern Ireland Pharmacy Workforce Review – recommended 'Further development of the Consultant Pharmacist programme should be implemented to ensure the ongoing provision of clinical leadership across all pharmacy sectors.' [7] A Task & Finish Group, established by the Chief Pharmaceutical Officer (CPO), met to consider the current position with regards to Consultant Pharmacists in Northern Ireland and to make recommendations with regards to the future development of the role (Appendix 1). This report describes the role of the Consultant Pharmacist, the current position within Northern Ireland and makes recommendations for the future direction of travel.

https://www.healthni.gov.uk/sites/default/files/consultations/dhssps/medicinesoptimisation-quality-framework.pdf

<sup>[1] -</sup> Department of Health Social Services and Public Safety Northern Ireland (DHSSPSNI). The Medicines Optimisation Quality Framework, May 2016. Available at:

<sup>[3] -</sup> Transforming Medication Safety in Northern Ireland, 2020, Department of Health available at health-ni.gov.uk

<sup>[4] -</sup> World Health Organization Third Global Patient Safety Challenge 'Medication Without Harm.' 2017 available at who.int

<sup>[5] -</sup> Transforming Medication Safety in Northern Ireland, 2020.

<sup>[6] -</sup> The Medicines Optimisation Quality Framework, May 2016.

<sup>[7] -</sup> Northern Ireland Pharmacy Workforce Review, 2020, Department of Health available at health-ni.gov.uk

#### 2.0 The Role of the Consultant Pharmacist

A Consultant Pharmacist is defined as 'a clinical expert working at a senior level, delivering care and driving change across the healthcare system'.[1] Consultant pharmacists have developed and demonstrated high level expertise in:

- their area of clinical practice
- leadership
- education
- research

As leaders in their field and profession, Consultant Pharmacists provide expert care to patients with the most complex needs and provide advice to teams caring for patients. Their influence spreads across organisational and professional boundaries. They actively develop knowledge through research, innovate in their area of expertise, share these developments to improve care and lead on the adoption of HSC and professional priorities in their area of practice.

In Great Britain, the Royal Pharmaceutical Society (RPS) is the delegated body which administers the approval of new Consultant Pharmacist posts and the credentialing of individuals. To use the title 'Consultant Pharmacist' when delivering NHS services, an individual must hold one of the approved Consultant Pharmacist posts on the RPS directory and either:

- have successfully completed the RPS Consultant Pharmacist credentialing assessment or
- be a legacy Consultant Pharmacist who historically held a Consultant Pharmacist post that had been approved by the relevant regional/national process prior to the launch of RPS credentialing.

Adopting the Royal Pharmaceutical Society's model for Consultant Pharmacist job evaluation and credentialing of candidates will contribute to a robust governance framework for these roles in Northern Ireland.

<sup>[1] -</sup> Consultant Pharmacist Guidance, Consultant Pharmacists Short Life Working Group January 2020, Health Education England available at hee.nhs.uk

# 3.0 The Case for Change

Health and Social Care in Northern Ireland continues to evolve with a focus on providing seamless, integrated care. The clinical skills of the pharmacy team have advanced steadily since the introduction of the Independent Prescribing qualification in 2006. Today in Northern Ireland the pharmacy workforce contributes to the care of patients and the public in every hospital, general practice surgery and community pharmacy. New ways of working have been embedded into practice including, the introduction of integrated medicines management within secondary care, pharmacist independent prescribers in all sectors, specialist pharmacist roles and networks. In addition, the current Reform of Initial Education and Training which is being undertaken across the UK will mean that after completion of their undergraduate and foundation training all pharmacists will register with an Independent Prescribing qualification from 2026 onwards.

Medicines regimens are becoming increasingly complex and polypharmacy is a common feature of modern clinical practice. There is a need to have a skilled pharmacy workforce, integrated with the wider multidisciplinary team, with expertise in medicines optimisation.

These developments support the development of Consultant Pharmacist roles across a range of healthcare settings so that their expertise can be used to maximise the health and wellbeing of the population and promote joined up working across healthcare interfaces.

Pharmacists are now working in different areas of healthcare, developing portfolio careers. This cross-sector approach has the potential to support seamless patient care. To underpin this change, we need flexible ways to recognise posts and professionals, supporting these pharmacists to work at the top of their license.

The pharmacy profession recognises that in order to meet the challenges highlighted above and the constantly emerging challenges in healthcare, widespread access to clinical expertise and leadership will be required. Consultant Pharmacist posts will be created to attract and retain those with the highest level of clinical expertise to address these challenges. These experts must be appropriately placed so that all patients and professionals across a healthcare system can benefit from their expertise and so the individual in the post can influence the local system for the benefit of the entire population.' [1]

## 4.0 Consultant Pharmacists in Northern Ireland

The Royal Pharmaceutical Society's process for approving Consultant Pharmacist posts and credentialing potential candidates were implemented in August 2022. At present, there are nine Consultant Pharmacist posts in Northern Ireland.

Post	Base
Medicines Optimisation in Older People (MOOP)	One post in each of the five HSC Trusts
Cancer Services	Western HSC Trust
Respiratory Medicine	Western HSC Trust
Palliative Care	Belfast HSC Trust
Antimicrobials	Western HSC Trust

Table 1: Current Consultant Pharmacist posts in Northern Ireland (June 2023)

A description of these roles is presented below. Current publications, conference presentations, awards and grants are listed in Appendix 2.

# 5.0 Current Consultant Pharmacist Roles in Northern Ireland

# **Consultant Respiratory Pharmacist**

The Consultant Respiratory Pharmacist, Cairine Gormley, was appointed to the Western HSC Trust in October 2020. Cairine played a leading role during the COVID-19 pandemic, compiling ever-changing treatment guidelines Her initial clinical role was in optimising and reconciling medicines of patients on admission to hospital with 128 patients reviewed in the first 2 menths, 200 interventions and



**Cairine Gormley** 

patients reviewed in the first 3 months, 889 interventions made, 247 prescriptions written and 140 medicines stopped. This resulted in potential cost savings of between £99k and £198k. [1] [2], [3], [4].

The Respiratory Consultant Pharmacist, as an autonomous practitioner, has developed virtual and face-to-face, outpatient asthma clinics for patients admitted to hospital with acute exacerbations. Referrals are made by Respiratory Medical Consultants, physiotherapists and nurse specialists.[4] The post is being part-funded (for two years) by the Medicines Optimisation and Innovation Centre (MOIC) who have supported Cairine in developing research skills and writing for publications.

A quality improvement project to pilot a digital technology innovation for video Direct Observed therapy has been completed and is in draft format. A regional respiratory pharmacist network has been established for secondary care pharmacists to share learning about important advances in treatment for this patient group.

<sup>[1] -</sup> Gormley, C.; Spargo, M.; Fleming, G.; Moore, B.; Scott, M.; Sharkey, R.; Friel, A. Medicines Optimisation for Respiratory Patients— The Establishment of a New Consultant Respiratory Pharmacist Role in Northern Ireland. Pharmacy 2021, 9, 177. https://doi.org/10.3390/pharmacy9040177

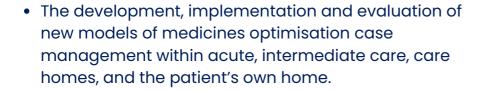
<sup>[2] -</sup> Gormley, C.; Kelly, M.; Moore, B.; Sharkey, R.; Spargo, M. Evaluation of a consultant respiratory pharmacist service for Respiratory Support Unit COVID-19 patients. The Clinical Pharmacy Congress 2021 (Poster)

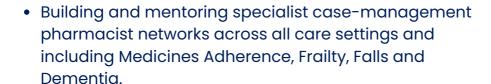
<sup>[3] -</sup> Gormley, C.; Kelly, M.; Moore, B.; Sharkey, R.; Spargo, M.; Fleming, G. Consultant respiratory pharmacist input to COVID-19

<sup>[4] -</sup> Respiratory Support Unit—an Evaluation. Irish Thoracic Society Annual Scientific Meeting 2022 Abstract Book 1 – 3 December 2022, Naas, Ireland. Ir J Med Sci 191 (Suppl 5), 129–185 (2022). https://doi.org/10.1007/s11845-022-03209-1

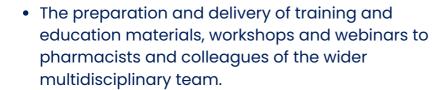
# **Consultant Pharmacist Older People Network**

There are five Consultant Pharmacists in Older People's Care across Northern Ireland. Their role is to provide strategic leadership of Medicines Optimisation in Older People (Local) and within the Consultant Pharmacist Medicines Optimisation in Older People (MOOP) team (Regional). Each Consultant Pharmacist has local and regional responsibility for:









 Securing funding and conducting research looking at improving medicines management in people living with dementia

 Introducing innovative new ways to support adherence to medicines for people living with Parkinson's disease.



**Carrmel Darcy** 



**Jayne Agnew** 



**Hilary McKee** 



**Karen Miller** 



**Paula Crawford** 

#### **Consultant Cancer Services Pharmacist**

The Consultant Cancer Services Pharmacist, Lorna Cairns, was appointed to the Western Health and Social Care Trust in 2016. Her work as a Consultant Pharmacist spans across the four pillars with expert professional practice as a core. Her role ensures expert support in clinical practice and leadership across the North West Cancer Centre, and manages the safe and prompt introduction of new cancer treatments. Within the role she has:



**Lorna Cairns** 

- Developed, implemented and evaluated of new models of medicines optimisation for patients with cancer.
- Introduced new guidance and improved standards of care.
- Expanded professional roles of pharmacists and pharmacy technicians to increase staff satisfaction, reduce stress and increase capacity.
- Secured funding and conducting research looking at improving medicines management in elderly patients with cancer.
- Investigated and is developing innovative new ways to support medicine adherence for people with cancer.

#### **Consultant Palliative Care Pharmacist**

The Regional Consultant Pharmacist in Palliative Care, Peter Armstrong was appointed in September 2022, based in Belfast Health and Social Care Trust but with a regional remit for palliative and end of life care. Peter's work plan for the first year has been approved in conjunction with Trust Heads of Pharmacy, SPPG, and the Regional Palliative Care in Partnership Programme Board.



**Peter Armstrong** 

It includes addressing gaps in the provision of Specialist Palliative Care Pharmacists across hospital, hospice and community services, improving access to palliative care medicines both within and outside normal working hours, and promoting evidence-based guidance on palliative care across hospital, hospice, and community settings. He will also collaborate with the Strategic Planning and Performance Group (SPPG) commissioners and other stakeholders to deliver and evaluate palliative care training for and is the chair of the NI Palliative Care Pharmacists Group.

#### **Consultant Antimicrobial Pharmacist**

A new Consultant Pharmacist recently been appointed to the Western HSC Trust. The post holder will take up post in July 2023.

#### 6.0 Recommendations for the Future Direction of Travel

- 1. Consultant Pharmacist posts will continue to be developed across Northern Ireland. They will be based in secondary care initially but will have systemwide influence and impact.
- 2. A primary focus for the development of Consultant Pharmacist posts will be clinical areas where the burden of medicines use is high, that will benefit from the expert clinical and leadership skills of a Consultant Pharmacist.
- 3. Consultant Pharmacists will create and work as a network of expert practitioners with formal links to the Chief Pharmaceutical Officer and other Pharmacy Leaders to enable a strategic aspect within their role.
- 4. Communities of practice, led by Consultant Pharmacists, will be created to support pharmacists in advancing their professional practice across all sectors.
- 5. Consultant Pharmacists will have a regionally agreed work plan that links to the strategic development of medicines optimisation and pharmaceutical care, signed off by the Pharmacy Leaders Forum. This will link to the regional work-plan of the Trust Clinical Pharmacist Development Leads.
- 6. Northern Ireland will use the Royal Pharmaceutical Society (RPS) of Great Britain's Consultant Pharmacist post approval and credentialing systems.
- 7. All future Consultant Pharmacist posts must be approved by the RPS and pharmacists applying for these posts will need to meet the criteria in the employee specification, including those relating to credentialing. A pharmacist in an RPS- accredited Consultant Pharmacist post cannot use the title Consultant Pharmacist until they have been credentialed by the RPS.
- 8. The Northern Ireland Centre for Pharmacy Learning and Development (NICPLD) should develop further an education and training pathway to support the development of Advanced Practice Pharmacists to carry out Consultant Pharmacist roles. This will include pharmacist developmental pathways for GP Practice Pharmacy and Community Pharmacy.

- 9. NICPLD should support pharmacists to carry out mentoring and other roles as part of the credentialing process and should develop leadership training for middle grade/ senior pharmacists to support succession planning for senior roles.
- 10. Discussion with the Pharmaceutical Society of Northern Ireland should be undertaken to explore ways to identify pharmacists who have completed the credentialing process successfully.
- 11. Consultant pharmacists should be assisted in progressing their research and service development skills with the support of relevant organisations.

  These could include the MOIC, Universities and Northern Ireland Clinical Research Networks.

# **Appendix 1**

# Membership of the Consultant Pharmacist Development Task and Finish Group

Dr Anne Friel (Chair), Head of Pharmacy & Medicines Management, Western Health & Social Care Trust

Mr Joe Brogan - Head of Pharmacy and Medicines Management at SPPG

Dr Glenda Fleming, Deputy Director, Medicines Optimisation Innovation Centre (MOIC)

Dr Laura O'Loan, Associate Postgraduate Pharmacy Dean (Vocational Programmes) NICPLD

Ms Jill Macintyre, Head of Pharmacy and Medicines Management, South Eastern HSC Trust

Ms Sarah McGinnity, Clinical Pharmacy Development Lead Pharmacist, Belfast Health and Social Care Trust

Ms Glynis McMurtry, Professional Head of Pharmacy for GP Federations Mr Gerard Greene, Chief Executive CPNI

Ms Ennis Shields, Governance and Services Pharmacist, CPNI

Ms Jayne Agnew, Northern Ireland Consultant Pharmacists Representative

Dr Lisa Byers - Senior Principal Pharmaceutical Officer. Department of Health (DoH)

The Group had input from Mr Stephen Doherty and Mr Joseph Oakley from the Royal Pharmaceutical Society.

# **Appendix 2**

#### Publications, Conference Presentations, Awards and Grants

The Consultant Pharmacists in Northern Ireland have contributed to the existing evidence base for the role. The evidence reflects the impact of Consultant Pharmacists in all four pillars of practice – clinical practice, education, leadership and research.

#### Consultant Pharmacist - Respiratory Medicine

Developing the role of Consultant Pharmacists in Northern Ireland – a Respiratory Focus, Pharmacy Management NI conference November 2021–Gormley, C., Spargo, M. and Friel, A.

Gormley, C.; Spargo, M.; Fleming, G.; Moore, B.; Scott, M.; Sharkey, R.; Friel, A. Medicines Optimisation for Respiratory Patients: The Establishment of a New Consultant Respiratory Pharmacist Role in Northern Ireland. Pharmacy 2021, 9, 177. <a href="https://doi.org/10.3390/pharmacy9040177">https://doi.org/10.3390/pharmacy9040177</a>

Gormley, C.; Kelly, M.; Moore, B.; Sharkey, R.; Spargo, M. Evaluation of a consultant respiratory pharmacist service for Respiratory Support Unit COVID-19 patients. The Clinical Pharmacy Congress 2021 (Poster).

Gormley, C.; Kelly, M.; Moore, B.; Sharkey, R.; Spargo, M.; Fleming, G. Consultant respiratory pharmacist input to COVID-19 Respiratory Support Unit—An Evaluation. Irish Thoracic Society Annual Scientific Meeting 2022 Abstract Book 1 – 3 December 2022, Naas, Ireland. Ir J Med Sci 191 (Suppl 5), 129–185 (2022). <a href="https://doi.org/10.1007/s11845-022-03209-1">https://doi.org/10.1007/s11845-022-03209-1</a>

Gormley, C. Establishment of a Specialist Respiratory Pharmacist Outpatient Clinic. Irish Thoracic Society Annual Scientific Meeting 2022 Abstract Book 1 – 3 December 2022, Naas, Ireland. Ir J Med Sci 191 (Suppl 5), 129–185 (2022). <a href="https://doi.org/10.1007/s11845-022-03209-1">https://doi.org/10.1007/s11845-022-03209-1</a>

# Consultant Pharmacists Network – Medicines Optimisation for Older People (MOOP Team)

## **Journal Publications (Full Papers and Articles)**

Doherty, A., Adamson, G, Mallet, J, Darcy, C, Friel. A, Scott, M.G., Miller, E.F. Minding the gap-an examination of a pharmacist case management medicines optimisation intervention for older people in intermediate care settings. Research in Social and Administrative Pharmacy, 11 April 2022 <a href="https://doi.org/10.1016/j.sapharm.2022.03.015">https://doi.org/10.1016/j.sapharm.2022.03.015</a>

Jayne Agnew, Dula Alicehajic-becic, Nina Barnett, Paula Crawford, Carmel Darcy, Emyr Jones, Hilary McKee, Karen Miller, Lelly Oboh and Heather Smith. Optimising remote consultations for older people during COVID-19. Prescriber, March 2021; 32(3): 9-14. Available at: <a href="https://doi.org/10.1002/psb.1899">https://doi.org/10.1002/psb.1899</a>

Stephen Ward, Rosalind O'Reilly & Paula Crawford. Evaluating clinical pharmacist involvement in a COVID-19 intensive care recovery clinic. The Pharmaceutical Journal, April 2021. Available at: <a href="http://doi.org/10.1211/PJ.2021.1.74349">http://doi.org/10.1211/PJ.2021.1.74349</a>

Heather Smith, Karen Miller, Nina Barnett, Lelly Oboh, Emyr Jones, Carmel Darcy, Hilary McKee, Jayne Agnew and Paula Crawford.Person-Centred Care Including Deprescribing for Older People. Pharmacy 2019, 7(3), 101. <a href="http://doi.org/10.3390/pharmacy7030101">http://doi.org/10.3390/pharmacy7030101</a>

Miller R. Medicines Optimisation in Older People; the journey from pilot to permanent service. Journal of Medicines Optimisation, 2018; 4(2): 27-36. Available at: JOMO March 2018 (pharman.co.uk).

EF Ruth Miller, Carmel M Darcy, Anne BM Friel, Michael G Scott, Stephen B Toner. Consultant pharmacist case management of older people in intermediate care: a new innovative model. European Journal for Person Centred Healthcare, 2016; 4(1): 1-7. Available at: <a href="http://dx.doi.org/10.5750/ejpch.v4i1.1056">http://dx.doi.org/10.5750/ejpch.v4i1.1056</a>

McKee H, Miller EFR, Cuthbertson J, Scullin C, Scott MG.Nursing Home Outreach Clinics show an improvement in patient safety and reduction in hospital admissions in residents with chronic conditions. European Journal for Person Centred Healthcare, 2016; 4(4): 650-655. Available at: <a href="http://dx.doi.org/10.5750/ejpch.v4i4.1178">http://dx.doi.org/10.5750/ejpch.v4i4.1178</a>

#### **Other Publications and Articles**

Miller K. What my deaf daughter taught me about PPE and communicating with the hard of hearing in the pharmacy. Pharmaceutical Journal, September 2020. Available at:The Pharmaceutical Journal, September 2020. <a href="http://doi.org/10.1211/PJ.2020.20208283">http://doi.org/10.1211/PJ.2020.20208283</a>

Miller K & Madden K. Impact of an Intermediate Care Medicines Optimisation Team in Fracture and Falls Prevention. Innovage, 2019; 25; 18-20.

Darcy C, Miller K, Crawford P, Agnew J, McKee H, Miller R.Pharmacists Optimising Medicines for Older People in Northern Ireland. British Geriatric Society Newsletter. Autumn 2019.

Miller R. NICE Shared Learning. Medicines Optimisation for Older People in Care Homes and the Intermediate Care Setting: Developing and reproducing new models of care. <a href="https://www.nice.org.uk/sharedlearning/medicines-optimisation-for-older-people-in-care-homes-and-the-intermediate-care-setting-developing-and-reproducing-new-models-of-care">https://www.nice.org.uk/sharedlearning/medicines-optimisation-for-older-people-in-care-homes-and-the-intermediate-care-setting-developing-and-reproducing-new-models-of-care</a> published online September 2017 (Last accessed July 22nd, 2021).

# Journal Publications (Conference Abstracts)

Conroy C. Caring for SAM in our older people's community. 11th International Conference on Geriatrics, Gerontology & Elderly Care, June 2021. Available at:Caring for SAM in our older people's community | Clare Conroy | Belfast Health and Social Care Trust, United Kingdom | Geriatrics Gerontology 2021 | Conference series Ltd (insightconferences.com) (publication in Gerontology and Geriatric Research pending)

Kirkpatrick F & Crawford P. Laxative prescribing in care homes. British Geriatric Society Spring Meeting 2021. Available at: BGS Spring Meeting 2021 - Abstracts Book Formatted v3 (1)-compressed.pdf Page 48.(Publication in Age & Aging pending).

Crawford P. Fitzpatrick F, Galway O & Watson K. Establishing Virtual Multidisciplinary round in Belfast Trust Nursing Homes: Pharmacist, nursing and healthcare team collaboration. British Geriatric Society Spring Meeting 2021. Available at:BGS Spring Meeting 2021 - Abstracts Book Formatted v3 (1)-compressed.pdf Page 52. (Publication in Age & Aging pending).

Doherty A, Miller R, Darcy C, Friel A, Mallet J, Shevlin M, Adamson G. Medicines Optimisation in care homes via pharmacist case management: what is the impact on subsequent healthcare resource usage? International Journal of Pharmacy Practice, 2020; 28(S1): 73.Available at: <a href="https://onlinelibrary.wiley.com/toc/20427174/2020/28/S1">https://onlinelibrary.wiley.com/toc/20427174/2020/28/S1</a>

Saeed D, Miller R, Miller K, Madden K, Doherty L, Ferris T et al. Service evaluation of the Medicines Optimisation in Older People (MOOP) service for frail older patients in the acute care setting. International Journal of Pharmacy Practice, 2020; 28(S1): 18. Available at: <a href="https://onlinelibrary.wiley.com/toc/20427174/2020/28/S1">https://onlinelibrary.wiley.com/toc/20427174/2020/28/S1</a>

Miller R, Darcy C, Friel A et al. The development of a trust medicines adherence service for older people. International Journal Clinical Pharmacy, 2019; 41: 349. Available at: <a href="https://link.springer.com/content/pdf/10.1007/s11096-018-0759-9.pdf">https://link.springer.com/content/pdf/10.1007/s11096-018-0759-9.pdf</a>

Ann Doherty, Ruth Miller, Anne Friel, Carmel Darcy, Rory McSorley, Hilary McKee, Stephanie Park, Jayne Agnew, Eileen Cranney, Karen Miller, Fiona Kirkpatrick, Gary Adamson, John Mallett, Mark Shevlin. Targeting pharmacist case management medicines optimisation outreach services to care homes. FIP Glasgow, 2018. Available at: <a href="https://www.fip.org/abstracts?">https://www.fip.org/abstracts?</a>
page=abstracts&action=item&item=20529

Ruth Miller, Carmel Darcy, Anne Friel, Hilary McKee, Jayne Agnew, Karen Miller, Nuala McGeough, Natasha Beattie, Helen Graham, Clare Conroy, Kevin Madden. Regional roll out of a medicines optimisation in older people pharmacy service in intermediate care. FIP Glasgow, 2018. Available at: <a href="https://www.fip.org/abstracts?page=abstracts&action=item&item=20574">https://www.fip.org/abstracts?page=abstracts&action=item&item=20574</a>

Miller R, Darcy C, McGeough N, Friel A, Graham H, Hetherington M, et al.. The Development and Refinement of a Regional Model for Medicines Optimisation in Older People in the Intermediate Care Setting. International Journal of Integrated Care. 2017; 17(5):A120. DOI: <a href="http://doi.org/10.5334/ijic.3425">http://doi.org/10.5334/ijic.3425</a>

Miller R, McKee H, Friel A, Darcy C, McSorley R, Parkhill S, et al.. Developing a Regional Medicines Optimisation Model for Older People in Care Homes: Refinement and Reproducibility. International Journal of Integrated Care. 2017; 17(5):A121. DOI: <a href="http://doi.org/10.5334/ijic.3426">http://doi.org/10.5334/ijic.3426</a>

Miller R, McClean M, Friel A. An Independent Service User Evaluation of a Consultant Pharmacist Led. Medicines Optimisation in Older People's Project. International Journal of Integrated Care. 2017; 17(5):A122. DOI: <a href="http://doi.org/10.5334/ijic.3427">http://doi.org/10.5334/ijic.3427</a>

Miller R, McKee H, Scullin C, Darcy C, Friel A, McCrory R, Parkhill S, McLister N, Nicholl J, Scott M. Developing a Regional Medicines Optimisation Model for Older People in Care Homes: Refinement and Reproducibility. 8th All Ireland Pharmacy Conference, October 2017. Available at: Oral presentations – formatted (iiop.ie)

Miller R, Darcy C, Friel A, McGeough N, Graham H, Scott M, McKee H, Hetherington M. A Regional Model for Medicines Optimisation in Older People in the Intermediate Care Setting; refinement and reproducibility. 8th All Ireland Pharmacy Conference, October 2017. Available at: Oral presentations – formatted (iiop.ie)

Miller R, McCann M, Friel A. Medicines Optimisation in Older People Services in Care Homes and Intermediate Care: An Independent Evaluation. 8th All Ireland Pharmacy Conference, October 2017. Available at:Oral presentations – formatted (iiop.ie)

Miller R, McClean M, Friel A. Evaluation of the Consultant Pharmacist Led Medicines Optimisation in Older People's Project: Engagement with Older People, Carers and Staff.Pharmacy Management National Forum, London 2016. <a href="http://doi.org/10.13140/RG.2.2.27328.94722">http://doi.org/10.13140/RG.2.2.27328.94722</a>

Miller R, Friel A, Darcy C, McGeough N, Graham H, McKee H, Hetherington M, Scott M. A Regional Model of Medicines Optimisation for Older People in Intermediate Care: Refinement & Reproducibility. Pharmacy Management National Forum November 2016. http://doi.org/10.13140/RG.2.2.16522.06086

Miller R, Darcy C, Friel A, Scott M, Toner S. Consultant pharmacist case management of older people in intermediate care. 7th All Ireland Pharmacy Conference, 2015. Available at:

https://iiop.ie/sites/default/files/All%20Ireland%20conference%20proceedings% 202015.pdf

McKee H, Scott MG, Cuthbertson J, Miller R. Do consultant led pharmacist medication reviews lead to improved prescribing? British Geriatric Society, autumn 2014. Available at: Age and Ageing, Volume 44, Issue suppl\_1, April 2015, Page i5. <a href="https://doi.org/10.1093/ageing/afv029.20">https://doi.org/10.1093/ageing/afv029.20</a>

Darcy C, Miller R, Friel A, Scott M. Consultant pharmacist case management of elderly patients in intermediate care. British Geriatrics Society for better health in old age, Spring Meeting 2014.p78. Available at: Age and Ageing, Volume 43, Issue suppl\_2, October 2014, Page ii2, <a href="https://doi.org/10.1093/ageing/afu124.6">https://doi.org/10.1093/ageing/afu124.6</a>

Miller R, Darcy C, Friel A, Scott M. Consultant pharmacist case management of elderly patients in intermediate care. FiP 2013, Towards a future vision for complex patients. Available at <a href="http://www.fip.org/abstracts?">http://www.fip.org/abstracts?</a>
<a href="mailto:page=abstracts&action=item&item=8829">page=abstracts&action=item&item=8829</a>

R Miller, C Darcy, A Friel, M Scott, S Toner.(2014). The introduction of a new consultant pharmacist case management service on the care of elderly patients in the intermediate care setting. International Journal of Pharmacy Practice, 22 (Suppl 2): 106-107. Available at: <a href="http://onlinelibrary.wiley.com/doi/10.1111/ijpp.12146/pdf">http://onlinelibrary.wiley.com/doi/10.1111/ijpp.12146/pdf</a>

Dima Saeed, Ruth Miller, Carmel Darcy et al.An exploration of healthcare professionals' perspectives of the Medicines Optimisation in Older People [MOOP] service for frail older patients in the acute care setting: a qualitative study. European Geriatric Medicine. Abstracts of the 17th International E-Congress of the European Geriatric Medicine Society, 2021. In Press.

# **Conference Abstracts (No abstract Publication)**

Doherty A, Miller R, Adamson G et al. Inappropriate prescribing among older people in intermediate care: prevalence, pharmacist intervention and predictors of improved prescribing. International Conference for Integrated Care (Virtual), September 2020.

Doherty A, Miller R, Adamson G et al. Healthcare utilisation following pharmacist case management of older people in intermediate care. International Conference for Integrated Care (Virtual), September 2020.

Isabelle Thompson & Karen Miller. Role of the Clinical Pharmacy Technician in Seasonal Influenza Programme in Intermediate Care. 9th All Ireland Pharmacy Conference, 2019.

Saeed D, Miller R, Darcy C, Miller R, Madden K, Doherty L.Service evaluation of the Medicines Optimisation in Older People (MOOP) service for frail older patients in the acute care setting. Northern Ireland Medication Safety Conference, Belfast, November 2019.

Ruth Miller, Carmel Darcy, Anne Friel, Nuala McGeough, Helen Graham, Hilary McKee, Maureen Hetherington, Mike Scott. Medicines Optimisation in Intermediate Care: Reproducing an Innovative Model of Older People Care. UKCPA conference, Leeds, November 2017.

Carmel Darcy, Marianne Porter, Toni McGrath, Ruth Miller, Brendan Moore, Anne Keenan, Anne Friel. Integrating specialist case-management pharmacists in the Older People Assessment Liaison (OPAL) Team. UKCPA conference, Leeds, November 2017.

Miller R, Darcy C, Friel A, McGeough N, Graham H, Scott M, McKee H, Hetherington M. A Regional Model for Medicines Optimisation in Older People in the Intermediate Care Setting; refinement and reproducibility. Hospital Pharmacy Europe, London, November 2017.

Miller R, McKee H, Scullin C, Darcy C, Friel A, McCrory R, Parkhill S, McLister N, Nicholl J, Scott M. A regional medicines optimisation model for older people in care homes. Hospital Pharmacy Europe, London, November 2017.

Miller R, McCann M, Friel A. Medicines Optimisation in Older People Services in Care Homes and Intermediate Care: An Independent Evaluation. The CTRIC 8th Annual Translational Medicine Conference (TMED8), Londonderry, September 2017.

Carmel Darcy, Marianne Porter, Toni McGrath, Ruth Miller, Brendan Moore, Anne Keenan, Anne Friel. Integrating specialist case-management pharmacists in the Older People Assessment Liaison (OPAL) Team. The CTRIC 8th Annual Translational Medicine Conference (TMED8), Londonderry, September 2017.

Miller R, McKee H, Scullin C, Darcy C, Friel A, McCrory R, Parkhill S, McLister N, Nicholl J, Scott M. A regional medicines optimisation model for older people in care homes. The CTRIC 8th Annual Translational Medicine Conference (TMED8), Londonderry, September 2017.

SMiller R, Darcy C, Friel A, McGeough N, Graham H, Scott M, McKee H, Hetherington M. A Regional Model for Medicines Optimisation in Older People in the Intermediate Care Setting; refinement and reproducibility. The CTRIC 8th Annual Translational Medicine Conference (TMED8), Londonderry, September 2017.

Miller R, McKee H, Darcy C, Friel A, Scott M, Parkhill S, McSorley R, Nicholl J, McLister N, Scullin C. A Regional Medicines Optimisation Model for Older People in Care Homes. Pharmacy Management National Forum November 2016.

Darcy C, Trolan C, McEnhill C, Miller R. Potentially Inappropriate Prescribing in Older People in Intermediate Care Setting in WHSCT. Trust Quality & Safety Showcase, WHSCT, October 2014.

Darcy C, Miller R, Friel A, Scott M. The impact of a new consultant pharmacist case management service on the care of elderly patients in the intermediate care setting. Poster presentation, The Quality Improvement and Safety Conference. HSC Patient Safety Forum and GAIN, DHSSPSNI. Titanic Conference Centre, March 2014.

Miller R, Darcy C, Friel A, Scott M. Consultant pharmacist case management of elderly patients in intermediate care. Poster Presentation. International Forum on Quality & Safety in Healthcare, Paris. September 2013.

Darcy C, Miller R and Friel A. Pharmaceutical Care of Older People in Intermediate Care. Poster Presentation. GAIN Audit Conference. May 2013.

Morrissey R, Darcy C, Friel A, Scott M. Pharmacy Management National Forum. The Impact of a Consultant Pharmacist on an Intermediate Care of the Elderly Unit. November 2013.

Darcy C, Miller R, Friel A. Consultant pharmacist case management of elderly patients in intermediate care. UKCPA Autumn symposium 2013.

Morrissey R, Darcy C, Friel A, Scott M. Consultant pharmacist case management of elderly patients in intermediate care. 5th Annual Translational Medicine Conference, May 2013.

Morrissey R, Darcy C, Friel A, Scott M, Tonner S. The Impact of a Consultant Pharmacist on an Intermediate Care of the Elderly Unit. Pharmacy Management National Forum. November 2012.

## Conference/Meeting Presentations (No abstracts)

Celtic conference (virtual). A NI approach to medicines optimisation in Frail elderly.March 2021.

NICON (NI Confederation for H&SC) conference presentation: Build it Back, Build it Better. Pharmacy, Transformation & Lessons from Covid - Fringe session. MDT in Care Homes, October 2020.

Clinical Pharmacy Congress: MOOP overview and care homes. September 2020.

NI Pharmacy COVID Conference 2020. Three MOOP Sessions by Consultant Pharmacists.ECAH- how Covid helped accelerate change. Care Homes. Interim community step down facility.

Medicines Safety Conference. Frailty assessment- two frailty journeys. 27th November, 2019.

## **Book Chapters**

Polypharmacy and Multimorbidity (Chapter 17). Pharmacy Management in Long-term Medical Conditions. Editors Ross Ferguson & Jonathan Burton. Pharmaceutical Press, 2020. Collaborative Contribution from MOOP Consultant Pharmacists.

#### **MOOP Awards**

#### South Eastern Health and Social Care Trust

HSCQI Improvement Awards, 2021. Enhanced Care at Home. Implementation of Electronic, Combined Prescription and Medicines Administration Record to Improve Antimicrobial Stewardship and Treatment-Visibility Across Primary and Secondary Care Interface, Finalist.

Northern Ireland Healthcare Awards. Dr Karen Miller and the Medicines Optimisation for Older People Intermediate Care Team. Hospital Pharmacy Team of the Year, 2019.

#### **Western Health and Social Care Trust**

HSJ Patient Safety Awards. Safe Care in Older People. Finalist, 2015.

RPSGB Pharmaceutical Care Awards. Winner 2014.

HSJ Value in Healthcare Awards (Medicines Management), 2014. Finalist (In the top 8 out of 71 entries).

British Geriatric Society Spring Conference 2014, Elizabeth Brown Prize Award for Platform Presentation (C Darcy)

C-TRIC TMED 4 conference 2013 - oral presentation 1st prize (C Darcy)

GAIN 2nd annual conference, 2013 poster - 1st Prize (R Miller et al.)

Shortlisted for CTRIC TMED Health Challenge, 2013 (C Darcy)

Shortlisted for Institute of Healthcare Management HSC Quality Award 2013

#### Northern Health and Social Care Trust

Research Led Management Award, Runner-up, Institute of Healthcare Management Awards, Belfast, November 2013.

Winner Chairman's Quality Award, Northern Health and Social Care Trust, November 2012.

#### WHSCT & NHSCT

AbbVie Sustainable Healthcare Patients as Partners awards. Winner in the 'Making Health & Social Care Patient Friendly' category. November 2017 (£3k bursary awarded)

Northern Ireland Healthcare Awards. Dr Ruth Miller & the Medicine's Optimisation in Older People Team. Hospital Pharmacy Team of the Year, 2017.

Pharmacy Management Awards. Evaluation of the Consultant Pharmacist Led Medicines Optimisation in Older People's Project: Engagement with Older People, Carers and Staff.Best Medicines Optimisation in Secondary Care (poster). November, 2016.

#### **MOOP Grants**

WHSCT Discretionary Fund Research Grant. Awarded to Dr Ruth Miller (Chief Investigator) and Carmel Darcy (Co-applicant). The Relationship between the Medication Appropriateness Index (MAI) and Healthcare Outcomes in Older People. £4408.

#### **Consultant Pharmacist- Cancer**

Journal of Oncology Pharmacy Practice (JOPP) Abstract Booklet for BOPA 2020 Abstract 32; Type: Poster Category: Service Evaluation or Improvement Medicines optimisation for oncology patients receiving chemotherapy.

Ferguson L, Cairns L, Miller R & Burnett K. An assessment of antiemetic guidelines for the prevention and treatment of nausea and vomiting in haemato-oncology adult patients receiving systemic anti-cancer therapy. Northern Ireland Medication Safety Conference, November 2019.

Journal of Oncology Pharmacy Practice (JOPP) Abstract Booklet for ISOPP/BOPA 2019 abstract 48; Evaluation of palbociclib usage in patients with metastatic breast cancer at the North West Cancer Centre, Although Area Hospital; Deborah Peoples, Lorna Cairns.

Poster presented at BOPA 2018- A service delivery improvement strategy for patients receiving bortezomib based regimens.

Presented a poster at the 7th All Ireland conference, and as a result my abstract was published online 2006.

Abstract was published in the NI Healthcare Magazine. 2004 Introduction of Pharmacist at oncology outpatients' clinic.

Journal Northern Ireland Healthcare Review; Oncology Jan 2022 – In Safe Hands.