

Person-centred approach to address polypharmacy in a Diabetes outpatient clinic setting

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Background and Objective

Polypharmacy is the use of multiple medicines and is becoming a significant public health challenge. Although sometimes appropriate, polypharmacy can increase the risk of adverse medical outcomes.

Diabetes is a complex multi-system disorder increasing in prevalence in Scotland¹. In 2020, there were 317,128 people known to have diabetes in Scotland. Crude prevalence of diabetes ranged from 4.9% to 6.9% in NHS boards across Scotland. NHS Dumfries and Galloway is one of the highest with a crude prevalence of 6.7%. Diabetes is a progressive condition leading to increasing intensity of therapy, as well as requiring additional treatment for its potential complications and co-morbidities. Therefore, this means that polypharmacy is inevitable.

iSIMPATY is an EU project that uses a multidisciplinary approach across three European countries to deliver person centred polypharmacy medication reviews, building on the methodology set out in SIMPATY². The project aims to build a sustainable solution to support patients taking multiple medicines and optimise outcomes with medication use.

Method:

Polypharmacy medication reviews were carried out using the 7-steps approach³ in a Diabetes outpatient clinic setting. The criteria for selecting patients for review included patients on 5 or more medications or patients on high-risk medication regardless of the number of medications taken, using the criteria set out in the polypharmacy guide². Appropriateness of polypharmacy was assessed using person centred medications appropriateness index (PC-MAI).

Main outcome measure:

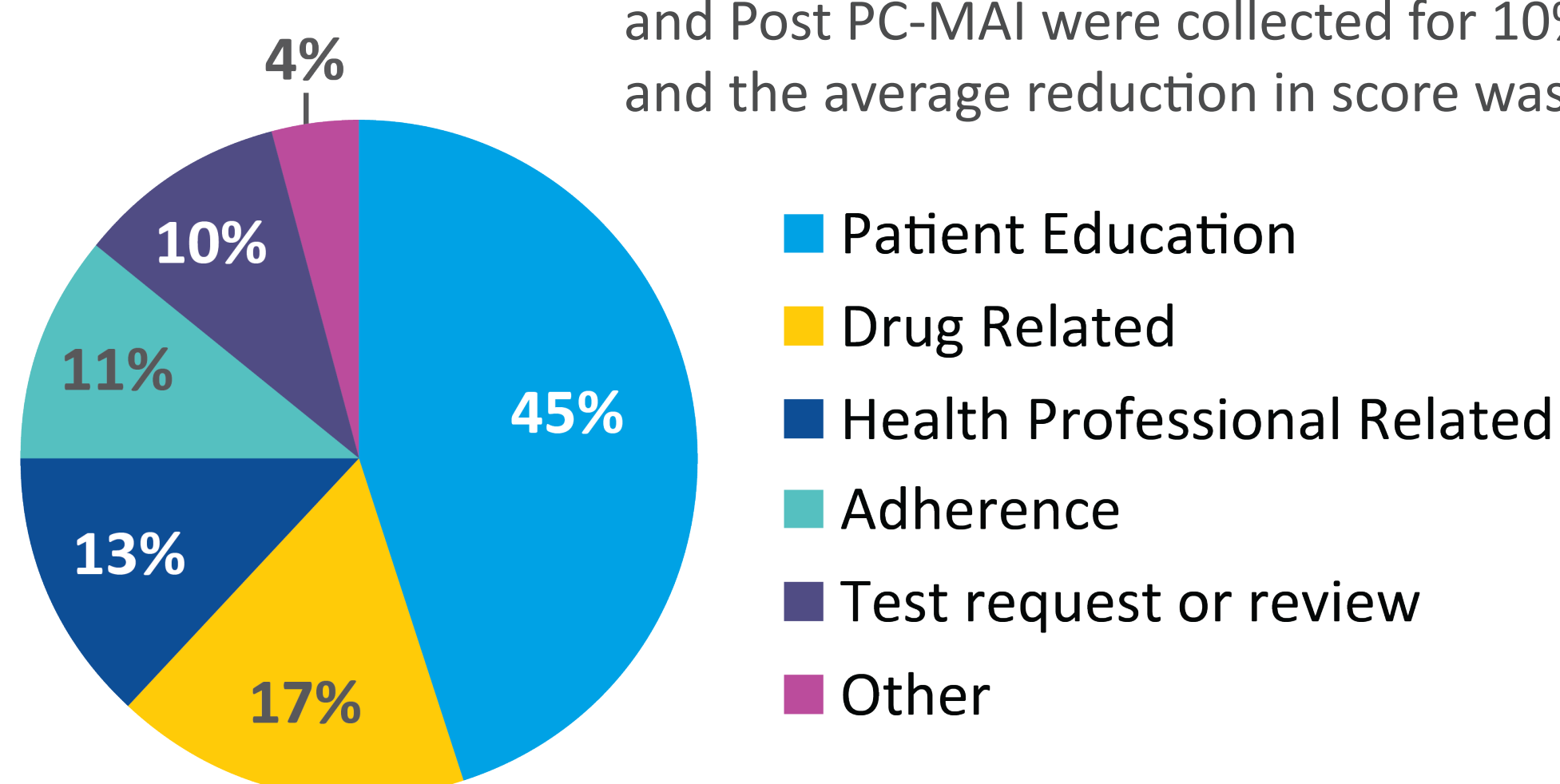
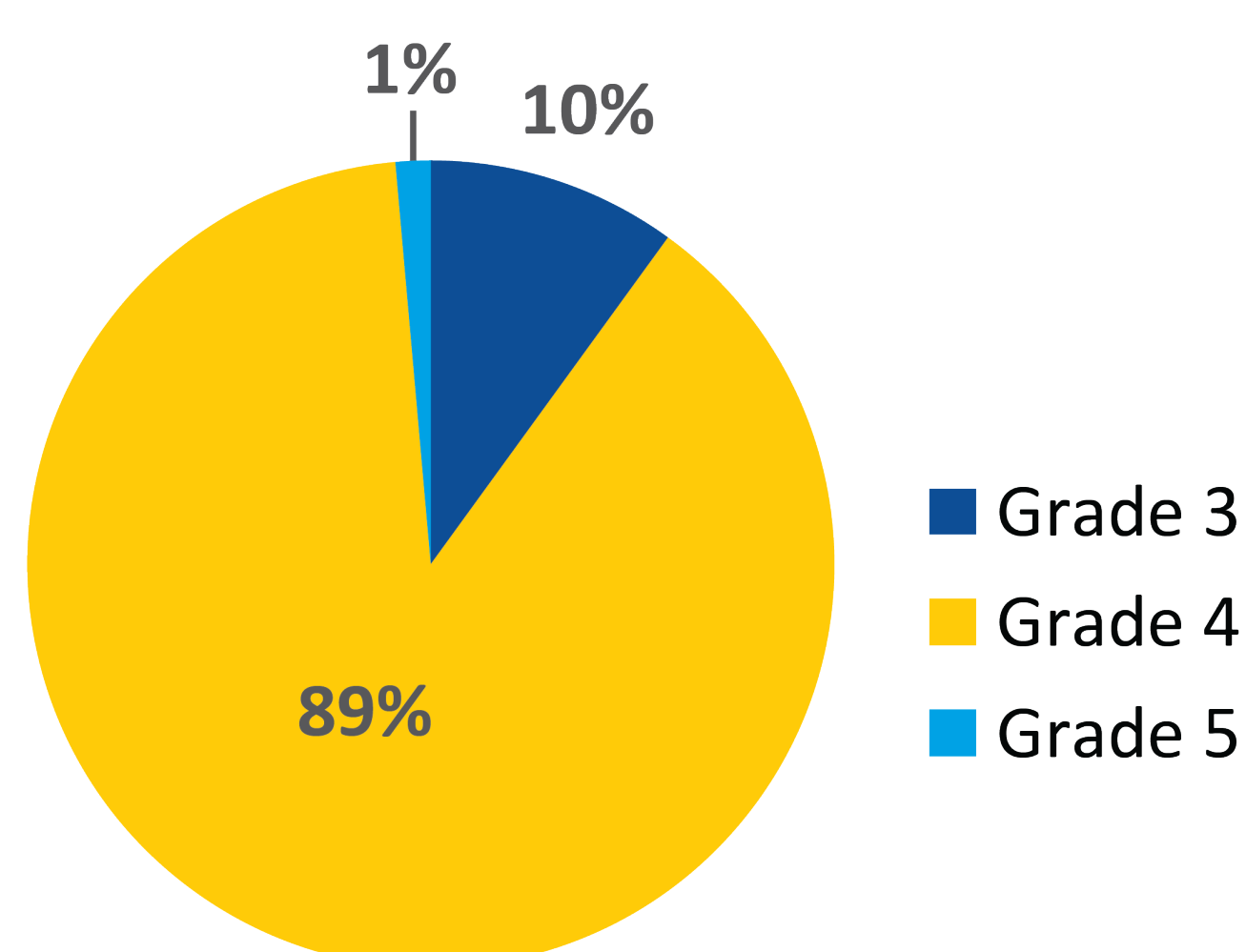
Interventions for each review were recorded and graded using the Eadon Scale, and person-centred medications appropriateness index (PC-MAI). Patient feedback was collected pre and post review.

Results:

Overall 564 polypharmacy reviews have been delivered since the start of the project.

On reviewing the data collected from quarter one, 139 polypharmacy medication reviews were delivered during this time. The average number of co-morbidities per patient was 6. Each review had an average of 9.4 interventions. Using Eadon, 10% of these interventions were grade 3, 88.6% were grade 4 and 1.4% were grade 5. 45.1% were categorised as Patient Education, 17.2% as Drug related which incorporated interactions, formulation, dose, frequency, time, duration, duplication and indication. 12.7% were referral to other professional and 10% were test request or review. The average reduction in medication per review was 2 medicines. Pre

and Post PC-MAI were collected for 10% of the reviews and the average reduction in score was 5.



Patient Feedback:

Patient feedback has shown the iSIMPATY project has had a positive impact. A selection of quotes are displayed in the table:

Before review	After review
"I just take my tablets as I'm told"	"Made life easier; I now have a routine with my medications"
"I don't know why I take my tablets as they don't make me feel any different"	"I feel involved in decisions regarding my medicines"
"I've taken these meds for years, I'm not exactly sure what they are for"	"I've learnt why it's important to take my tablets regularly and why they are necessary"
"I test my sugars but I have no idea what the numbers mean and if the tablets are working"	"I now understand how to manage my medicines correctly"
	"I appreciate the time taken to explain my medicines"

Conclusion:

The majority of the interventions were grade 4 and 5, both of which are significant and result in an improvement in the standard of patient care and reduced the contact needed with other healthcare services.

The reviews were well received by both patients and other health professionals. Patients appreciated the dedicated quality time spent reviewing their medication and positively welcomed the interventions. Likewise, health professionals recognised that the level and quality of the review reduced the number of interactions needed with themselves, thus having a positive impact on reducing their workload and potentially reducing hospital admissions.

Using the iSIMPATY methodology ensured patients were integral to the decisions made about their medicines, realistic goals were set and patients were empowered and supported to achieve them.



References:

1. Scottish Diabetes Survey 2020. Scottish Diabetes Data Group. Available: <https://www.diabetesinscotland.org.uk/wp-content/uploads/2022/01/Diabetes-Scottish-Diabetes-Survey-2020.pdf>
2. Mair A, Fernandez-Limos F, Alonso A, Harrison C, Hurding S, et al. 2017. Polypharmacy management by 2030: a patient safety challenge. Rep., SIMPATY Consort., Coimbra.
3. Scottish Government Polypharmacy Model of Care Group. Polypharmacy Guidance, Realistic Prescribing 3rd Edition, 2018. Scottish Government.