

EVALUATION OF PHARMACIST-LED CARDIOVASCULAR SERVICES WITHIN PRIMARY CARE PROVIDED BY CARDIOVASCULAR PHARMACISTS

Kora Koch¹, Natalie Bidad², Christopher Meddings³, Victoria Collings³

¹MSc Clinical Pharmacy International Practice and Policy, UCL, School of Pharmacy, ²Research Coordinator for MSc CPIPP, Research Assistant (Centre for Behavioural Medicine), UCL, School of Pharmacy, ³Senior Cardiovascular Pharmacist, Guy's and St. Thomas' NHS Foundation Trust



INTRODUCTION

Cardiovascular diseases (CVDs) cause an estimated 45% of all deaths in Europe, with high **systolic blood pressure (SBP)** being the largest medical risk factor.[1] The importance of CVD prevention remains indisputable and should cover delivery at different levels to firstly ensure a healthy lifestyle and secondly reduce CVD risk factors.[2] To **improve patients treatment outcomes** and **support general practitioners (GPs)** in promoting quality improvement, the NHS Bexley CCG enables a **pharmacist-led clinic (PLC)** as well as a **hypertension virtual clinic (HVC)** within the **Primary Health Services** in Bexley.

AIM & OBJECTIVES

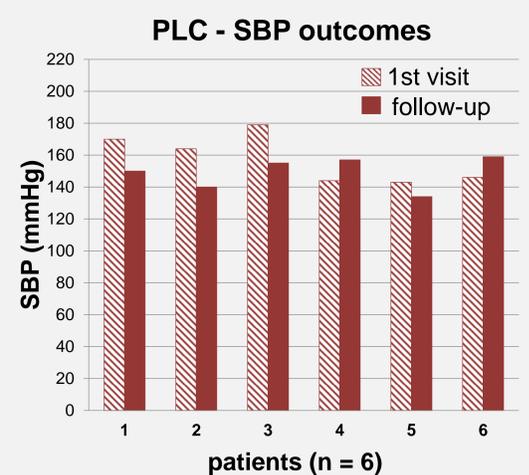
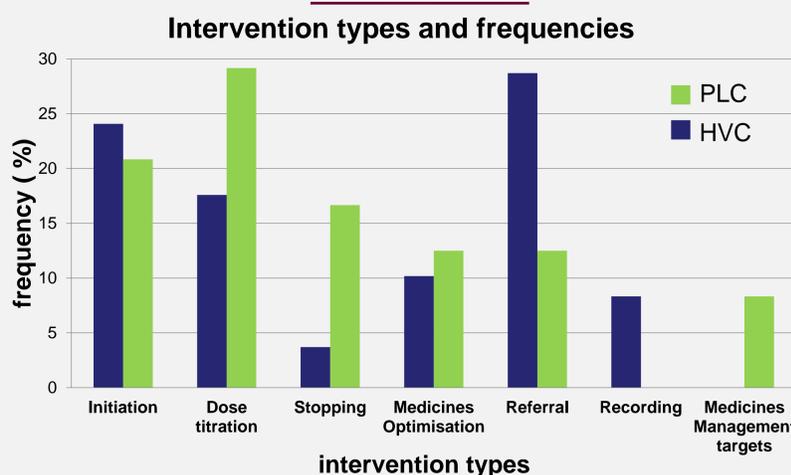
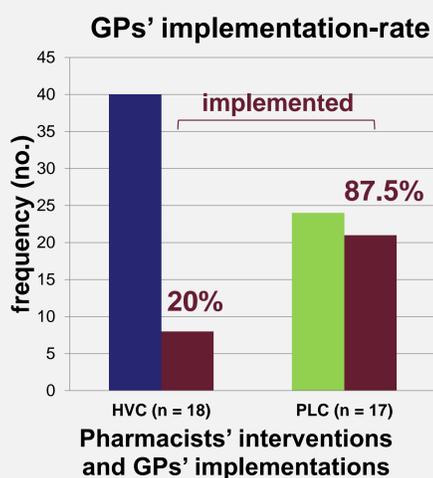
To **evaluate the cardiology services** delivered by clinical pharmacists within the Primary Health Service Bexley in the period of June 2016 (when the services started) to July 2017.

- To outline the **types and frequencies of interventions** (excluding lifestyle advice) and their **implementation-rate** by GPs.
- To evaluate **patients' clinical outcomes**.
- To evaluate **patient feedback** on the new services.

METHODS

- Retrospective data collection** from clinic letters and returned surveys was conducted at the clinical pharmacy office at St. Thomas' NHS Foundation Trust.
- Data collection tools were designed on Microsoft Excel®.
- All patients using the cardiology services** since its start and all surveys returned were **included**.
- Data collection period: 20.06.2017 – 07.07.2017

RESULTS



KEY FINDINGS

PLC

- GPs implemented 87.5%** of all pharmacists' interventions.
- Dose titration** was the most frequent at **29.16%**.
- SBP decline of -8.5 (±17.54) mmHg** was observed within 4 (±2.16) months and a **non-HDL-C decline of -1.61 (±0.69) mmol/l** (n = 3) within 5 (±3.06) months.
- The surveys show a **high satisfaction** rate (n = 9).

HVC

- 108 interventions were made (n = 65).
- GPs implemented 20%** out of 40 pharmacists' interventions. (follow-up data, n = 18)
- A **SBP decline of -11.5 (±16.70) mmHg** was observed.
- 5 patients (**45.45%**) met their individual **BP target within 6 months**.

DISCUSSION & CONCLUSION

By October 2017, further investigations, including more 6-month follow-up data, showed a SBP decline of -18 (±18.0) mmHg for 34 patients of the HVC and there were 26 patients who had 1st visit SBP >160 mm/Hg compared with 3 patients after 6 months. For the PLC a SBP decline of -23 (±2.0) mmHg was achieved for 3 patients.

This study shows that the new pharmacist-led cardiology services have a positive impact on overall CVD risk reduction since its start in June 2016. Pharmacists' interventions covered a variety of aspects including both lifestyle and pharmacological patient-centred advice, ensuring detailed documentation of individual CVD risk and if needed referral for appropriate tests or secondary care follow-up.

However, due to the small number of patients a statistical analysis of significance cannot be conducted. Further investigations covering a broader evaluation of a higher number of patients managed over a longer period of time, would enable a more precise statistical analysis. This would provide more conclusive evidence on whether or not the positive impacts are statistically significant.

ACKNOWLEDGEMENTS

I want to thank Natalie Bidad, Victoria Collings and Christopher Meddings for their help and support, as well as the UCL School of Pharmacy and Guy's and St. Thomas NHS Foundation Trust for the collaboration.

REFERENCES: [1] European Heart Network, 2017. European Cardiovascular Disease Statistics 2017. [online] Available at: <<http://www.ehnheart.org/cvd-statistics.html>> [Accessed at 11.02.2018]. [2] Catapano et al., 2016. 2016 ESC/EAS Guidelines for the Management of Dyslipidemias. European Heart Journal, 37 pp. 2999-3058.