Research Round up October 2024 – Remote Healthcare

Introduction

Last month the research round-up provided you with an overview of articles looking at prescribing in the critical care setting. This month we will look at articles relating to or including remote care and remote prescribing. The first article discusses training needs for staff providing remote services in general practice. The second article will look at implementing remote pharmacist consultations prior to day case arthroplasty with a view to improving patient outcomes. In our third article we will review trends in out of hours antibiotic prescribing which includes remote practice consultations and prescriptions.

Training needs for staff providing remote services in general practice: a mixed-methods study

T Greenhalgh, R Payne, N Hemmings, H Leach, I Hanson, A Khan, L Miller, E Ladds, A Clarke, SE Shaw, F Dakin, S Wieringa, S Rybczynska-Bunt, SD Faulkner, R Byng, A Kalin, L Moore, J Wherton, L Husain & R Rosen (2024) *Training needs for staff providing remote services in general practice: a mixed-methods study* British Journal of General Practice 74. 738: e17-26

This article, published in the British Journal of General Practice, aimed to identify the training needs, core competencies and learning methods for staff in General Practice in the UK who provided care during remote encounters. This mixed methods study collected data from 12 General Practices in the form of longitudinal ethnographic case studies. The researchers also conducted a multi-stakeholder workshop as well as interviewing policymakers, training providers and trainees. In addition, a targeted literature search was also carried out of research published and grey literature. A thematic analysis approach was used to code the data constructing an iterative framework covering aspects of teaching, learning and related concepts of individual and team learning. The results were grouped into themes around current training, perceived training needs, experiences of training, the views of training providers on methods and, a working towards a set of competencies and capabilities for remote encounters.

The results suggest that low confidence and perceived unmet training needs were common among participants. Training needs from basic technological skills, triage, ethics of privacy and consent, and communication and clinical skills were reported. This was more so in novice clinicians. Established clinicians reported training priorities around advanced communication skills, limitations of technologies, complex judgments and co-ordination of multiprofessional care in the remote setting. They also highlighted the training of others in the feedback.

The researchers note that their findings suggest that learning to provide care in the General Practice arena remotely occurs in the context of high workload, understaffing, and complex workflows. They further state that the issues of multiple illness episodes and multiple encounters with remote consultations and care happening over a period of time. Low confidence and lack of training in the areas they identified were important factors. They suggest a move away form online and didactic training towards experiential learning, on the job shadowing and whole team training would improve knowledge acquisition especially in the more complex judgment areas of care, while online technological training was seen as appropriate.

The authors conclude that the knowledge needed to deliver high-quality remote encounters to diverse patient groups is complex, collective, and organisationally embedded and training methods and delivery should be reviewed in light of these statements.

[Training needs for staff providing remote services in general practice: a mixed-methods study (bjgp.org)](https://bjgp.org/content/bjgp/74/738/e17.full.pdf)

Implementing an innovative, patient-centered approach to day case arthroplasty: improving patient outcomes through remote preoperative pharmacist consultations

K Fitzpatrick, K Addie, M Shaw, R Higginson, L Hudman, J Samuel, R Forrest, P MacTavish (2024) *Implementing an innovative, patient-centered approach to day case arthroplasty: improving patient outcomes through remote preoperative pharmacist consultations* European Journal of Hospital Pharmacy 31:4:321-326

This article, published in the European Journal of Hospital Pharmacy sought to establish whether pre-admission remote consultations conducted by pharmacists would improve patient outcomes by addressing perioperative medicines issues as well as promoting patient empowerment. The ultimate aim was to improve prescribing quality and reduce length of stay post procedure. This process was prompted to be introduced due to reduced capacity because of the COVID-19 pandemic and the need to implement novel strategies to reduce the resultant backlog of patients waiting for procedures.

This service improvement project was funded through the NHS under a programme to remodel planned hospital care in the post-pandemic period. This single site project began in April 2021 and continues at the time of publication. Retrospective data form the commencement of the day case surgery from October 2020 until the commencement of the pharmacy remote consultation was also collected. The day case surgeries included were Total Hip Replacements, Total Knee Replacements and Unicompartmental Knee Replacements. During the study period all patients listed for any of these procedures were identified by a pharmacist prescriber 1-2 weeks before admission. The data collection period was 20 weeks until September 2021 and included 129 participants. The retrospective data of 80 patients was identified prior to the service start and included as a comparator.

The remote pharmacist consultation comprised of a review of the patient’s electronic notes, a telephone call to establish medication history, give perioperative medicines advice and answer questions. Following this a discussion with the surgical team to highlight any issues took place and an individualised discharge prescription was prepared. For the retrospective review data was collected by a pharmacist and a mock review conducted to identify any differences in advice or prescription. Additionally, staff options were collected via online survey and a patient satisfaction opinion was garnered by post-discharge phone call follow up.

Results showed that prescribing standards were improved in the intervention group compared with patients whose arthroplasty was before the introduction of this service. The pharmacy service would have produced a different prescription in 38.8% of the pre-intervention group. Staff and patient feedback was extremely positive and all patients with previous surgical experience in the health board reported an improved experience. There was no significant difference in length of stay but a statistically significant reduction in post-discharge healthcare encounters was noted in the intervention group. The authors conclude that the pharmacist run service improved standards and patient experience as well as reducing post-operative burden.

[Implementing an innovative, patient-centered approach to day case arthroplasty: improving patient outcomes through remote preoperative pharmacist consultations (bmj.com)](https://ejhp.bmj.com/content/ejhpharm/31/4/321.full.pdf)

Trends in antibiotic prescribing in primary care out-of-hours doctors’ services in Ireland

M Shah, T M Barbosa, G Stack, A Fleming (2024) *Trends in antibiotic prescribing in primary care out-of-hours doctors’ services in Ireland* JAC Antimicrobial Resistance 6:1

This article published in the Journal JAC-Antimicrobial Resistance was conducted to evaluate prescribing patterns for antimicrobial drugs in an out of hours primary care setting in a region of Ireland. The rational was to identify patterns and practices with a view to informing future antimicrobial stewardship interventions to reduce the incidence of development of antimicrobial resistance. This study was conducted retrospectively and designed as an observational cohort study methodology. The time frame for the study was 2 years and data between December 2019 and December 2021 was examined. As well as demographic and contextual data extraction the researchers looked at oral antibiotic prescriptions generated by the out of hours service over that period. Another key factor was the method of consultation (in person or remote) and the indication for the prescribed drug.

During the period of study 69017 antibiotic prescriptions were seen to have resulted and this was 17% of all consultations. Some seasonal variation was seen, and the incidence of prescription also varied depending on the age of the patients. The commonest indications were respiratory infections with a high number also for urinary tract infections which was seen to generate more prescriptions as the increased, with 5% prescribed in the 0-6 age group to 31% in the 65 years and over group. The study showed that amoxicillin was the most favoured antibiotic followed by co-amoxiclav and flucloxacillin with others being seen less frequently. During the COVID-19 pandemic period of the study, 66% of 49 421 of antibiotic prescriptions were issued from remote consultations.

The authors conclude that low antibiotic prescribing levels during the early stages of the pandemic were not sustained. Antibiotic prescriptions from remote consultations were noted to be common. They suggest that a key opportunity for antimicrobial stewardship could be taken by addressing the volume of antibiotic prescribing for RTIs, particularly in children.

[Trends in antibiotic prescribing in primary care out-of-hours doctors’ services in Ireland (silverchair.com)](https://watermark.silverchair.com/dlae009.pdf?token=AQECAHi208BE49Ooan9kkhW_Ercy7Dm3ZL_9Cf3qfKAc485ysgAAA1gwggNUBgkqhkiG9w0BBwagggNFMIIDQQIBADCCAzoGCSqGSIb3DQEHATAeBglghkgBZQMEAS4wEQQMtd97RKBQOXHDfkUcAgEQgIIDC7o6ro4evVYsYH9Mg4oduIS0kspXSPsrHNnpSLIsyrXIUv-6teQUrCjZDIrb5I0xPKKEJhGgxCTbhm5tDLgKdQrU9IxxgL0lxG8pJSX2UwIgRlKeMVC7V-WRLL01JXSVvVbk9rjEipYuBUD9L5DsJtnYErT5mYjTBLMoKCwc1lT0M9epGMM4gZ4v0WF-Nsl78KDwKnMQEuz8DZFh5dIa4wQyax_4B2_LAPiiA1LcuvWozCUPKufQpM5HiVEPH5DdmpGSzWtvpgL8_a7oqkyvw5fRmhy4VsyINRTJtFsM4xdl-2hhbb3Z7cTFtz8ck6Pc1EqhwgN6uXUfU6Qd4hoZrekLSqkKTuLjKFPZyWDKXcF2h8boZwCHiJ8oHZTDNyGbPJJjnKF4Cav74E-fhuTDPfOLCajBFhxPyyIyugeiWbRoSWo4wNHw8Dmbx1PcjM9Eyp2f4HgUr5rmMBOQKRsXSRINd7zzWMk_cRC-yWgjujdZGnIQquuoenkmTyyvdgwJQAS4-dptutWREUe-p4fgdDF9GkEzBnB86TJe6JdwjmMCd9wRfr2GY-UqEIwHGWGWOHRdDfvCga7ayub7bPTTnuAqvuyNNJgEhdU0oX35VYyoAfqFjn-LKApHWan5qFW8-v889Pid8I4GJMKbAaNpDvWcx24MwJEm3usHA_LozihZ6VBAUkoMGRgpLFCcbvJTgxRdJ17AJCJ0LPc6iYksm-tFxFnNze7hW0D3NIxDUSJ51EoDv2eBN3qSDO7Ocr2cudl0PlxOBWG9jqe6OrvxK2JHHuKywI3t3usxltmpdlSDphggRV0GnxAbyJqRgij32jykLD-TFvOSLM4uRj8RViiS0yH8TKegNyYjDAv798tk3WvmX5gw-tNzsEfHyS1carODDesG6jC_Ol9rf2Z4IrqIHnLK1R49urvn5pzqiXWU6OPwiwjo18QCFJwPH3EJZpXkZvWQWQJBgdR3H151FiyDfeQUnn-xvpB1k6HnxZM5Y4IsQ1bmQgM6IMDSs5WKliBPsII_8o4OzD0M)

Conclusion

Since the COVID-19 pandemic and the need for remote consultations was forced upon many healthcare sectors there has been a shift in how routine consultations take place. With most services returning to full face to face methods, remote consultations continue to be used by many healthcare professionals, and this is not only linked to remote geographical areas. Technological advances have meant that for many simple reviews or consultations non-physical attendance does not mean a lower level of care delivery. This also helps align with The NHS Long Term Plan of 2019 which commits to a digital-first primary care by 2023-2024 (NHS 2019). With proper training and support, remote healthcare can be as effective as the traditional face to face model.

Additional references

NHS England (2109) *NHS Long Term Plan.*  London NHSE