

Trent SAPC Regional Meeting 2020

Abstract Book

‘Beyond Silos: Linking Research, Education and
Clinical Practice’



SAPC



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LEICESTER

DOI reference: 10.37361/trent.2020.1.1

DOI LINK: <https://sapc.ac.uk/doi/10.37361/trent.2020.1.1>

Preface

Welcome to this book of Abstracts that was submitted for the Trent SAPC Regional Meeting 2020.

Sadly, the actual conference couldn't go ahead due to the COVID-19 pandemic, but we can celebrate excellence of colleagues within the Trent region for their contributions. As always, these had been a very high quality.

The Trent region encompasses many colleagues within the Midlands and beyond towards Lincoln & Keele, and now new colleagues have joined us from Aston and their new medical school which is now in its second year. It is great to have such a thriving community of primary care enthusiasts in both teaching and research.

In the meantime, please read the abstracts with interest and on an optimistic note, if the pandemic settles as we would wish and hope, then we should plan for having the conference itself in early September. We will keep you posted of developments regarding this.

Best wishes,



Rodger Charlton
Professor of undergraduate primary care education, University of Leicester



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The Use of Beta Blockers in Uncontrolled Asthma

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Cardiff University School of Medicine, 2015-2020

Background

Asthma is a chronic respiratory condition, causing paroxysmal and reversible inflammation and narrowing of airways. Beta blockers are commonly used to manage cardiac arrhythmias, heart failure and secondary prevention after myocardial infarction. They are contraindicated in patients with asthma as they can cause increased bronchial obstruction and airway reactivity.

Methods

Initially, the general practice database comprising over 7500 patients was searched for those with both an asthma diagnosis and concurrent beta blocker therapy. This list was refined through screening patient records, and 11 patients met the diagnosis of uncontrolled asthma. From taking a more detailed look at these patients records, it was possible to assess reasons for beta blocker therapy and which medication was selected, amongst other specifics.

Results

The majority of patients were commenced on beta blockers by cardiologists (64%) and specialist cardiac nurses (18%), which coincides with the indications; most patients received beta blocker therapy for heart failure (55%), with atrial fibrillation, post-myocardial infarction, tachycardia and migraines following. Bisoprolol was the beta blocker prescribed most frequently (73%).

Conclusion

The overwhelming guidance on this topic recommends that no patients with uncontrolled asthma should be on a beta blocker. Guidance is, however, starting to adapt the recommendations to incorporate a risk versus benefit approach. The Committee on Safety of Medicines states that beta blockers should not be used in asthmatics unless no alternative treatment is available. Difficulties arise in primary care when specialist clinicians prescribe medication and the GPs are required to continue the prescription.

Patients' views on the use of a pharmacist-led information technology intervention for reducing clinically important errors in medication management (PINCER) in English general practices

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Introduction

Following the successful roll out of the PINCER intervention in the East Midlands, a qualitative evaluation is currently underway *to* understand how PINCER is continuing to be viewed, experienced and embedded into general practice and to understand factors important for sustaining PINCER longer term. This abstract presents the early findings on patients' views of the intervention.

Methods

Practices in the East Midlands were asked to invite members of their patient participant groups (PPGs) or to identify patients who had experienced PINCER to participate in a focus group or interview (face-to-face or telephone). Semi-structured topic guides were used to guide discussions which were audio-recorded and transcribed verbatim. Resultant transcripts were analysed using thematic analysis to develop a coding framework. Patients were offered a £20 shopping voucher as an inconvenience allowance.

Results

Sixteen patients recruited from three PPGs participated in one focus group (n=8), one group interview (n=3) or a one-to-one interview (n=5). Overall, patients were positive with PINCER being used as a method to highlight potential medicine issues but expressed concerns that their practice records were not linked with hospital records and over-the-counter purchases, limiting what issues could be identified. GPs and pharmacists were viewed positively as having distinct but complementary roles within PINCER. Good communication was considered an important aspect to enabling PINCER to be used effectively.

Conclusion

General practice patients were supportive of PINCER being used in practice and pointed to the need for more communication between the different healthcare sectors for a more reaching impact with PINCER.

Identification of Familial Hypercholesterolaemia in Primary Care: Performance of Supervised Machine-learning Approaches

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Background

Familial hypercholesterolaemia (FH) is a common inherited disorder. Most individuals with FH remain undiagnosed, resulting in lost opportunities for preventing premature heart disease and death. The predictive accuracy of current models/criteria developed using the traditional prediction modeling approach to identify FH is between 0.581 and 0.832. The use of machine-learning approach to interrogate primary care records offers an opportunity to enhance FH detection. We assessed whether machine-learning can improve the accuracy in identifying patients with FH within a large general primary care population.

Methods

Retrospective cohort study using routine primary care clinical records of 4,027,775 individuals from the UK. Predictive accuracy of five machine-learning algorithms (logistic regression, random forest, gradient boosting machines, neural networks, and ensemble learning) in identifying patients with FH in the general population were compared. Predictive accuracy was assessed by area under the receiver operating curve (AUC).

Findings

There was 7,928 incident diagnosis of FH. The predictive accuracy of all the machine-learning algorithms were very good with the gradient boosting and deep-learning neural network algorithms having the highest predictive accuracy – logistic regress model: 0.812, 95% CI 0.801–0.822; random forest 0.891, 95% CI 0.883–0.899; gradient boosting: 0.892, 95% CI 0.884–0.900; deep-learning neural network: 0.892, 95% CI 0.884–0.900 and ensemble learning: 0.890, 95% CI 0.882–0.899.

Conclusions

Machine-learning significantly improves accuracy in identifying patients with FH in the general population. The use of these approaches could increase the number of patients identified who could benefit from preventive treatment avoiding premature heart disease and death.

Trends and variation in the incidence and prevalence of primary care antidepressant prescribing in children and young people in England: a population-based cohort study

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Introduction

The use of antidepressants in children and adolescents remains controversial. We examined trends over time and variation in primary care antidepressant prescribing in children and young people in England, and whether the drugs prescribed reflected UK licensing and guidelines.

Methods

All eligible children (aged 5-11 years) and adolescents (aged 12-17 years) in 1998-2017 from the QResearch primary care database were included. Incidence and prevalence rates of antidepressant prescriptions in each year were calculated overall, for four antidepressant classes (selective serotonin reuptake inhibitors, tricyclic and related antidepressants, serotonin and norepinephrine reuptake inhibitors, and other antidepressants), and for individual antidepressant drugs. Adjusted trends over time and differences by social deprivation, region and ethnicity were examined using Poisson regression.

Results

Of the 4.3 million children and adolescents in the cohort, 49,434 (1.1%) were prescribed antidepressants for the first time during 20 million years of follow-up. Antidepressant prescribing incidence rates decreased in children over the whole study period, but more than doubled in adolescents between 2005 and 2017, to 9.7 (females) and 4.2 (males) per 1000 person-years. Adolescents who were White, or living in South East England or more deprived areas, were more likely to be prescribed antidepressants. The five most commonly prescribed antidepressants were either licensed in the UK for use in children and young people, or included in national guidelines.

Conclusions

The trends and variation in antidepressant prescribing found may reflect true differences in need and risk factors, access to diagnosis and services, prescribing behaviour, or young people's help-seeking behaviour.

Audit to evaluate repeat prescriptions of Controlled Drugs at a local general practice

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Introduction

The prescription requirements outlined in the NICE “Controlled drugs: safe use and management” indicates that schedule 2 and 3 drugs should be prescribed for no more than 30 days. This Audit aims to evaluate the compliance of a local general practice with guidance recommendations.

Methods

An EMIS population search was conducted to include all currently registered patients with schedule 2 and schedule 3 controlled drugs. This highlighted the general practice was not meeting its target. This data was presented at a management meeting and an action plan developed

All patients receiving controlled drugs should be reviewed and placed on acute prescription unless exemptions applied.

Re-education of general practitioners of what drugs are included in the schedule 2 and schedule 3 controlled list, and providing posters in offices to allow for easy checking

A re-audit was then conducted 3 months after using the same EMIS population search for schedule 2 and schedule 3 controlled drugs.

Results

During the original audit it was found 14.18% of patients had schedule 2 and schedule 3 controlled drugs on repeat prescription. Following the implementation of the action plan a re-audit was undertaken. It found following on no patients repeat on controlled drugs.

Conclusion

This audit resulted in no patients receiving controlled drugs on repeat prescription. This is important as it allows prescribers to continually re-assess the clinical utility of these drugs, reducing risk of adverse consequences and unnecessary dependence.

Theme: Selection

Medicine Applicant Preparation Study (MAPS): Preparation Activities and Challenges for Medicine Applicants

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Background

In a profession committed to improving exposure to general practice before medical school, there is a challenge to consider the access and availability of work experience opportunities in General Practice (1). Furthermore, if GP Work experience (GPWE) is positively associated with the subsequent offer of a place, we risk the construct validity of our selection processes if some applicants find this easy to arrange, and some do not.

Methods

An electronic survey was distributed to all applicants to the University of Birmingham five-year MBChB programme from November–December 2018. The survey design was informed by prior thematic analysis of focus groups with Year 1 medical students, and explored applicant engagement with various preparatory activities, and the degree of challenge faced.

Analyses explored associations between specific preparatory activities, sociodemographic information and the subsequent offer of a place at medical school.

Results

1508 completed surveys were returned, with a 66% response rate. Following exclusions, 1277 surveys were available for analysis.

When controlled for other factors, multivariate analysis indicated that applicants doing GPWE were 1.25 times more likely to be offered a place ($p < 0.003$). GPWE was less commonly undertaken (54.03%) compared to caring (92%) and hospital environments (89.8%). 24.75% of respondents didn't arrange GPWE because the perceived obstacles were too great. Compared to applicants from independent (58.5%) and state selective schools (60.8%), applicants from non-selective schools were less likely to do GPWE (47.8%, $p < 0.000$).

Conclusions

Applicants continue to prioritise hospital work experience. Greater obstacles are perceived in accessing GPWE, which is less frequently undertaken by those from lower socio-demographic groups.

Characteristics and cardiovascular disease morbidity of men and women with Familial Hypercholesterolaemia (FH): A cohort study using data from the UK Simon Broome register linked with secondary care records

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Introduction

Previous studies of the Simon Broome (SB) Familial Hypercholesterolaemia(FH) register reported 3-fold higher cardiovascular disease (CVD) mortality in women vs men in the period 2008-2015. Here we examine CVD morbidity outcomes in these patients.

Methods

The SB subjects (aged 20-79 years), were linked with the UK secondary care Hospital Episode Statistics (HES) database. The excess Standardised Morbidity Ratio(SMbR) compared to an age and sex-matched UK general practice sample was calculated (95% confidence intervals) for risk of composite CVD (first HES outcome of coronary heart disease(CHD), myocardial infarction(MI), stable or unstable angina, stroke, TIA, PVD, heart failure, PCI and CABG).

Results

Of 3,553 SB register subjects 2,988 (52.5% women) had HES records. At registration, men had a significantly (all $p < 0.01$) higher prevalence of hypertension (12.5% vs 7.8%), previous CHD (24.8% vs 17.6%) previous MI (13.2% vs 6.3%), and were commenced on lipid-lowering treatment at a younger age than women (37.5years vs 42.3years). The composite CVD SMbR in men was 6.60 (6.12-7.12), and in women was 7.19 (6.66-7.76). In subjects aged 30-39 and 40-49, the composite SMbR in women were 39% and 72% higher than in men (21.36 (16.68-27.34) vs 15.41 (13.07-18.17), and 12.91 (10.76-15.49) vs 7.50 (6.51-8.65) respectively)

Conclusions

Men with FH have more CVD risk factors and are treated earlier and more optimally than women with FH. CVD morbidity due to FH remains markedly elevated in women, especially those aged 30-49 years. This highlights the need for optimal and timely lipid-lowering management for men and particularly women with FH.

Patient and GP views about early diagnosis and prevention of breast cancer

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Breast cancer is the most common cancer in women in the UK. Breast screening reduces the number of deaths from breast cancer by about 1,300 a year in the UK. Autoantibodies against breast cancer tumour-associated antigens can be detected up to 5 years earlier than conventional mammography screening. The use of selective estrogen receptor modulators (e.g. tamoxifen) as a chemoprevention can decrease the risk of developing estrogen receptor-positive breast cancer by up to 50%.

Aim: this study will explore the patients' views of the benefits and risks of blood test screening for early detection of breast cancer, the factors influencing screening uptake and views on chemoprevention. It will Explore GPs perspective of the use of a blood test for breast cancer screening and views on possible management pathways.

Methods: The study will involve semi-structured interviews with 40 women who are at variable risk of developing breast cancer and 20 GPs. The qualitative data will be analysed via thematic analysis based on the framework analysis using the NVivo software.

Results: the study may identify a range of facilitators/barriers for using different management pathways based on the identified themes.

Conclusion: The study will improve our understanding of the views and thoughts of the patients and GPs on the application of a blood test for early diagnosis breast cancer and tamoxifen as a preventive medication of breast cancer. The study may identify a range of facilitators and barriers for the screening women for breast cancer using a blood test and potential management pathways.

Can we improve our cardiovascular and cognitive health - a practical perspective on peripheral artery disease

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Background

Peripheral arterial disease (PAD) has a prevalence of 3-10%, increasing with age and co-morbidities, particularly diabetes. PAD confers a risk of limb ischaemia with complications such as amputation and cognitive impairment. In the UK, an average of 13,000 amputations occur every year – one major amputation every 2 hours. This review aimed to evaluate knowledge and awareness of PAD within the general public (including patients with peripheral vascular disease), non-specialist healthcare professionals (nsHCP) and trainees (medical students and trainee doctors).

Methods

Relevant articles were identified from electronic databases using key search terms: “peripheral artery disease”; “limb ischaemia”; “intermittent claudication”; “knowledge”; “understanding”; “public” “medical professional”. The heterogeneous results were described narratively.

Results

A lack of knowledge and understanding of PAD (disease awareness) were identified in all groups. Among nsHCPs, factors which affect knowledge include the level of training, early clinical exposure and the presence of family members with cardiovascular/vascular disease. Within the general public, knowledge and awareness was improved if a family member/friend had a diagnosis or following a patient-centred consultation with any HCP.

Conclusions

Understanding factors which improve knowledge of PAD is important both with the recognition of disease by nsHCP's and patient/public. This will inform the development of targeted educational intervention for each group to improve PAD knowledge and awareness, in order to effectively manage risk factors and minimise delayed or missed diagnosis of PAD.

A Medical Student-led Social Prescribing Service

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Background

Social prescribing is a means of enabling primary care professionals to refer people to a range of local, non-clinical services. Medical students at a large GP surgery in Corby, designed, implemented and led a social prescribing service for the practice's patients. Through the project students gained an authentic understanding of social prescribing.

Methods

During a 12 week GP placement students collated information on local organisations, charities and schemes into a social prescribing directory. A clinic was set up and a social prescribing protocol created to enable suitable patients to be referred to the service. Students educated staff and collected feedback on how the service should run. Patients referred to the service were seen by medical students, who identified suitable social prescribing opportunities. Follow up was arranged to encourage patient engagement with services. The student-led service has been successfully integrated with the work of the new PCN link worker.

Results

Medical students were able successfully identify social prescribing opportunities for patients referred to them in primary care. Experiential learning enabled them to develop an understanding of social prescribing and its place in healthcare. The work done by the students has enabled the PCN link worker to quickly develop an effective service, seeing over 200 patients in 3 months.

Conclusion

Medical students successfully designed and delivered a social prescribing intervention providing authentic educational experience in real-life clinical practice. The introduction of a PCN link worker enhanced this work and student input has continued in the ongoing service.

Introduction of a community of practice to support social prescribing link workers in Nottinghamshire

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Nottingham Alliance of Training Hubs

Introduction

February 2020 marks the 10-year anniversary of the Marmot review, which highlighted the substantial inequality in health conveyed by social circumstances. The NHS long term plan mandates the employment of a new workforce of social prescribing link workers who will assist patients with addressing the social problems that contribute to poor health status. This new workforce requires access to ongoing education and support and the present project aims to provide this through construction of a community of practice.

Methods

The literature regarding social prescribing and community of practice was reviewed and interviews held with key stakeholders. A Survey was deployed to analyse link worker community perspectives about key design features.

Results

Six interviews were conducted in addition to a survey of all 23 social prescribing link workers across Nottinghamshire. The survey received a 100% response rate. Previous similar ventures have included online platforms combined with face to face meetings. Various platforms are available for hosting the online platform. Final choice will depend on functionality and confidentiality. Link workers preferred meetings to be held less frequently but for a longer duration. A wide variety of training topics were requested, centred around mental health and communication skills.

Conclusions

The community of practice was launched on 10th February 2020. Initial reception has been positive. The initial model consists of a quarterly half day meeting combining education and networking, supported by an online platform hosted on NHS Source4Networks. This will be iteratively refined based ongoing on stakeholder feedback.

Early case identification of Familial Hypercholesterolaemia (FH): perspectives of primary health care professionals in the UK

Dr Laura Condon, Prof Nadeem Qureshi & Prof Joe Kai
University of Nottingham

Introduction

Familial hypercholesterolaemia (FH) is one of the most common inherited autosomal dominant disorders, causing elevated low-density lipoprotein (LDL) cholesterol levels. Left untreated this causes premature coronary heart disease and mortality yet most cases remain undiagnosed. Early detection and effective preventive intervention is a national priority in the UK and other countries. This research formed part of a prospective evaluation of the clinical utility and acceptability of a new FH case finding tool (FAMCAT) applied to patient records in routine clinical primary care practice.

Methods

Qualitative semi-structured interviews (n=20) were carried out with a purposeful sample of primary care health professionals (GPs, nurses, health care assistants) and practice managers selected from 10 UK primary care practices who had implemented and used the FAMCAT tool. Following case finding of patients at highest risk of FH, practices either initiated genetic testing on site or referred to other services. All interviews were transcribed and analysed thematically.

Results & Conclusions

Primary care practitioners recognised and welcomed the benefit of adopting a more systematic approach to identification of patients with undetected FH in their practice populations. They found application of the FAMCAT tool was acceptable and feasible in practice, and that genetic testing could be realised on site. However, implementing more routine identification of, and genetic testing for, FH in primary care should ensure adequate provision is made for increases in workload and resource use whilst taking into account the local organisational infrastructure at each primary care practice.

General practitioners' experiences of participating in the self-review audit of prescribing aimed at GPs in training

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Introduction

The GMC Practice study highlighted the need for more training in prescribing for GPs. The RCGP Workplace Based Assessment (WBPA) team have been working to identify a meaningful assessment of trainees' prescribing abilities. Using principles derived from a pharmacist-led review of prescribing (REVISiT), a self-review prescribing audit exercise has been developed by the WPBA team and explored in this small scale feasibility study.

Methods

Twenty-one GP trainers and trainees involved in the self-review prescribing audit were invited to participate in a focus group or a one-to-one interview (face-to-face or telephone) to discuss their experiences of undertaking this exercise. Discussions were guided using a semi-structured interview guide, audio-recorded and transcribed verbatim. Thematic analysis was used to identify emerging themes.

Results

Four interviews with three GPs were conducted between June and August 2018. GPs appreciated having dedicated time to reflect on their prescribing. They mentioned how microbial prescribing had benefitted from better engagement with antimicrobial guidelines following the self-review. The place for offering simple advice, before a prescription intervention was also discussed. The information provided for undertaking the review was considered clear and informative, with a preference for embedding this within the e-portfolio communicated. Time constraint was cited as a barrier to wider engagement with the self-review audit.

Conclusion

In spite of engagement and recruitment challenges, the narratives captured within indicate the potential role self-review may contribute to enhance prescribing. Finding strategies to engage more GPs in testing this self-review prescribing initiative to enable a larger evaluation process would be beneficial.

Applying for Medicine: the role and impact of social media on applicants to one UK University

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Introduction

Medicine applicants use a variety of information sources, including family/friends, university websites, open days, prospectuses, teachers/career advisors and now social media. With widening participation being a key priority for medical schools, it is even more important to understand the role of information sources, particularly social media, in successfully recruiting applicants. A literature review illustrated a lack of research into this important topic. This study aimed to increase understanding of the influence of social media on medicine applicants.

Methods

Semi-structured interviews were completed with eight participants – four from a Standard Five Year Medicine course and four from a Six Year Medicine with Foundation Year course. Interviews were audio recorded, transcribed and Grounded Theory was used to analyse the data.

Results

Main themes included: 1) Social media usage including peer networks and information seeking, 2) Traditional applicant resources including formalised support, and HE recruitment activity 3) Influential voices including personal networks, social media personalities and insider perspectives.

Conclusion

Applicants relied on a variety of information sources, including personal networks and university websites, which were primary, most informative sources. Social media played two key roles for applicants: information seeking and peer network utilization. Social media personalities provided information, inspiration, and insight into medicine. Students from widening participation backgrounds relied on family/friends, and teachers/careers advisors as well as YouTube for information, inspiration and an insider perspective. Many of these students did not attend university open days. Medical schools should meet applicants' demands for more insider medical student representation across their social media platforms.

Stakeholders' Perceptions of the Effectiveness of Healthcare for People on Probation

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Background

Despite high levels of need, many people on probation do not access healthcare until they reach crisis point. We investigated the views of healthcare commissioners and providers, and criminal justice staff on how effective current healthcare provision is at meeting this population's health needs. Researching stakeholders' perceptions of what constitutes effective provision, where barriers are encountered, and suggestions for improvements, is a step towards improving access to care for this hard-to-reach group.

Methods

As part of a wider study, we conducted case studies in six geographical areas of England via semi-structured telephone interviews with a purposive sample of 24 stakeholders with relevant roles in these areas. Interviews were conducted by researchers from a variety of backgrounds, and an individual with lived experience of the criminal justice system. Data were analysed using thematic analysis.

Results

Participants' perceptions of effective healthcare provision largely involved multi-agency partnership working. There are many barriers to providing appropriate healthcare provision to people on probation. These are underpinned by the complexity of this population's healthcare needs, the complexity of the healthcare landscape, and problematic commissioning processes.

Conclusions

Findings from the case studies and the wider research suggest that commissioners, practitioners, and policy makers can make improvements to achieve accessible healthcare that meets the needs of probationers. These have been detailed in a commissioning toolkit (see <https://probhct.blogs.lincoln.ac.uk/>) and include shared targets, improved funding, clearer pathways into care, and giving probation a voice in commissioning.

Factors associated with postpartum return to smoking in a 2017 UK pregnancy cohort

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Introduction

Helping women quit smoking in pregnancy and remain abstinent postpartum is an important public health target. Approximately half of UK women who smoke will attempt to quit in pregnancy; up to 76% return to smoking within two years. We analysed a UK cohort to identify prevalence of and factors associated with postpartum return to smoking (PPRS).

Methods

Women aged ≥ 16 years, between 8-26 weeks pregnant were recruited from 17 antenatal clinics across England and Scotland. They completed 3 questionnaires regarding their smoking behaviours and e-cigarette use at baseline (8-24 weeks), late pregnancy (34-36 weeks) and 12 weeks postpartum. From the cohort ($n=750$) we studied a subgroup who had quit during, or just before pregnancy ($n=162$). We established prevalence of PPRS by assessing postpartum smoking rates, and performed an exploratory multiple logistic regression to identify factors significantly associated with relapse.

Results

The postpartum questionnaire response rate for women who quit smoking during or before pregnancy was 84.6% ($n=137$). At baseline, 82.1% ($n=133$) were recent ex-smokers and mean age was 26.9 years (SD 5.59). Prevalence of PPRS, adjusted for non-response using multiple imputation, was 35.9% (95% CI 0.28-0.44). Factors associated with reduced rates of PPRS were breastfeeding at 12 weeks postpartum (adjusted OR 0.12, 95% CI 0.04-0.35) and use of e-cigarettes in pregnancy (adjusted OR 0.41, 95% CI 0.17-0.99).

Conclusion

Use of e-cigarettes may help to prevent PPRS, and breastfeeding until at least 12 weeks postpartum is another important factor in reducing relapse. These could be important constituents of future interventions to help maintain abstinence.

Expectations and Experiences: The contribution of supervision to the professional development of postgraduate General Practice Trainees

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Background

For GP trainees developing professionally, the supervisory relationship is considered a key source of support^{1,2,3,4}. Within the paradigm of pragmatism, this research aims to understand the contribution of supervision to the professional development of GP trainees, and consider how lived experiences of trainees and their supervisors relate to what may be intended from the perspective of the wider profession.

Methods

Using the West Midlands as a case study, explicit and tacit voices from the wider profession were explored, through semi-structured interviews with experienced supervisors⁷, and thematic analysis of GP training documentation. A series of narrative interviews with 13 GP trainees (purposively sampled) were undertaken at the beginning and end of their final year of training.

Results

The 'good' trainee is expected to be a legitimate participant, reflective learner and an adult learner. Tacit expectations also suggested the 'good' trainee collates evidence and doesn't complain. Trainee agency to work out their professional identity in the context of these expectations appeared most evident for those who improvised, and who mastered particular artefacts of training, rather than those who challenged situations directly. Supervision appeared to undulate between an agent of the wider profession (through power and positioning), and support for trainee agency.

Conclusions

Areas of dissonance emerged between the institutional expectations of the profession and the lived experiences of trainees; who must navigate multiple identities, tensions and responsibilities alongside their professional training. Supervisory relationships appear to remain an important contribution to trainee professional development, but are influenced themselves by institutional expectation, inherent tensions and socio-cultural context.

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**The * refers to previously published papers (references 5 and 7) summarising interviews with experienced educators and a systematic review of the literature: aspects of the PhD research. This abstract submission relates to the project as a whole, tying together the findings from each stage of the research.*

GP views on the routine identification of older people living with frailty in primary care

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Introduction

The 2017/18 GP contract requires primary care providers to use electronic tools to risk-stratify for frailty all patients over 65 years of age. Following a clinical review to confirm the degree of frailty, providers have been asked to consider offering relevant interventions to the most frail, to enable these patients to live well for longer. However, there is limited knowledge about how this frailty contractual requirement is being operationalised. The aim of this study is to improve our understanding of the ways in which the frailty contractual requirement is being implemented in primary care and the barriers and facilitators GPs encounter when routinely identifying, risk-stratifying and providing interventions for people living with frailty in primary care.

Methods

This was a 2 part study- an initial survey via online questionnaire, with participants selected by maximum variation sampling for a follow-up semi-structured telephone interview. All GPs working in the East Midlands region (Derbyshire, Leicestershire, Lincolnshire Nottinghamshire, Northamptonshire) were eligible. The online questionnaire was analysed using descriptive statistics. Interview transcripts were analysed using framework analysis to identify key themes.

Results

188 GPs responded to the survey and 18 GPs were interviewed. Four themes were identified: Beliefs about stratification and pro-active identification of frailty, Stratification tools, Managing complexity, resources and models of care and Drivers of GP behavior.

Conclusion

A range of factors influence the ability of primary care services to proactively identify and manage older people living with frailty. This study unearths priorities for primary care policy, commissioning and service configuration research.

Exploring the experiences of having Guillain-Barré Syndrome and its variants: a qualitative interview study

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Background

Guillain-Barré syndrome (GBS) is a rare inflammatory disorder that affects the peripheral nerves. The incidence of GBS is approximately one in 100,000 per year. GBS is more common in adults and the elderly, but it can also occur in children and adolescents. Following recovery from the acute phase of the illness, some people may continue to experience varying residual problems, months or years after the onset. Evidence describing the experiences of people with GBS is limited. To bridge this gap, we aimed to explore the experiences of people with GBS and its variants in the UK.

Methods

We recruited a purposive sample of 16 volunteers through the Guillain-Barré and Associated Inflammatory Neuropathies (GAIN) charity website and their social media pages. We collected data using individual face-to-face or telephone semi-structured interviews, based on the participants' preferences and following informed consent. The audio recorded data were transcribed verbatim and analysed using the thematic analysis method supported by NVivo 11. Ethics approval for the study was granted by the University of Lincoln ethics committee.

Results

Through the process of analysis we identified six overarching themes in the recovery journey ranging from experiences around the first symptoms to recovery. The key themes were: the importance of early diagnosis to enable commencement of early treatment; the experience of in-patient care which was both positive and negative and affected subsequent return to full health; and the importance of active support for recovery in relation to healthcare, disease, psychological, prior health, self-care and lifestyle, social and occupational factors that helped or hindered recovery. The need for communication throughout the course of the illness; the need for greater awareness, knowledge and provision of information by health care staff; and adjusting to and redefining recovery were also highlighted by participants as important for their recovery journey.

Conclusion

This is the first qualitative study exploring the experiences of people with GBS or its variants in the UK covering the illness journey from onset to recovery. The findings contribute to our understanding of the needs and appropriate provision of support for people recovering from GBS and its variants.

Determining potential underlying causes of embolic stroke of undetermined source (ESUS): Analysis of three pooled European stroke registries

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Introduction

One in five ischemic stroke patients have an embolic stroke of undetermined source (ESUS), without an apparent cause despite diagnostic work-up. We investigated the potential embolic sources (PES) in ESUS patients using clustering analysis, and explored variation in stroke recurrence in three European stroke registries.

Methods

We used *hierarchical k-means* clustering on patients' all baseline clinical data, assigning each individual into a unique group. PES were quantified using multivariable logistic regression to determine contribution to each patient group. Incidence rates of stroke recurrence were calculated.

Results

We identified four groups among 800 ESUS patients (43.3% women, median:67 years). Left ventricular disease (LVD) was most prevalent in group 1 (100% of patients, perfect association). Patent foramen ovale (PFO) was most prevalent in group 2 (38.9% of patients, OR:2.69, 95%CI 1.64-4.41). Arterial disease was most prevalent in group 3 (57.7%, OR:2.21, 95%CI 1.43-3.13) which was the largest group including 53.7% of the overall cohort. Atrial cardiopathy was most prevalent in group 4 (100% of patients, perfect association). Atrial fibrillation was not associated with any group.

Mean follow-up was 3.7 years (SD 3.7). Incidence rates (per 1000 person-years) varied: group 1, 21.7 (95%CI 7.0–67.3); group 2, 29.5 (95%CI 22.0–39.5); group 3, 29.3 (95%CI 17.3-49.5); group 4, 50.1 (95%CI 36.6–68.6). The differences were borderline significant (log-rank $p=0.05$).

Conclusions

We identified four groups of ESUS patients, with varying levels of stroke recurrence, associated with arterial disease, atrial cardiopathy, PFO and LVD. The findings give insight into the underlying causes of ESUS.

Identifying Long QT syndrome patients in primary care a population-based case control study and development of a predictive model.

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Intro

Rare diseases, defined as those that affect less than 1 in 2000 people, are frequently unrecognised with patients experiencing a “diagnostic odyssey” characterised by misdiagnoses and adverse events.

LQTS is an inherited rare cardiac arrhythmic condition that predisposes patients to syncope and sudden cardiac death. Identification to enable treatment can substantially reduce this risk.

We aimed to identify clinical features that precede diagnoses of Long QT syndrome (LQTS) in primary care and use these to develop a predictive model that could assist in the early identification of patients.

Method

We identified a cohort of 1495 patients with a diagnosis of LQTS from a database of primary care electronic records (CPRD). Each case was matched to 5 controls, accounting for covariates by propensity matching, and clinical features were identified that occurred prior to diagnosis. Multivariable logistic modelling was performed to develop a predictive model.

Results

A range of clinical features occurring with greater frequency in LQTS patients were identified including: Palpitations (2.22 (1.80,2.74)); epilepsy (1.70 (1.12, 2.56)); irritable bowel syndrome (1.78 (1.41, 2.26)); hypertension (1.64 (1.42,1.91); mitral valve disease (2.64 (1.41 to 4.91) (OR (95% CI)). A total of 18 clinical features were incorporated into the predictive model with an area under the ROC curve of 0.740.

Conclusion

This is the first study to assess how patients with LQTS present to primary care, with a range of both expected and unexpected clinical features found. This study demonstrates the potential of primary care records to identify patients with an increased likelihood of having a rare disease.

Improving Detection of Familial Hypercholesterolaemia in Malaysian Primary Care: Feasibility of Clinical Case Finding Approaches

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Introduction

Familial hypercholesterolaemia (FH) is a common inherited cause of raised cholesterol. If left untreated, FH can cause early cardiovascular morbidity and mortality. FH has been under recognized in many countries such as Malaysia, resulting in suboptimal management.

Methods

This is a prospective feasibility study involving patients attending two Primary Care Clinics in Malaysia from July to December 2019. Data collected included the patients' sociodemographic data, lipid profile levels and family history. These data are entered into a scoring application to calculate the risk of FH using Simon Broome (SB), Dutch Lipid Clinic Criteria (DLCC) and FAMCAT criteria. Patients with high risk of FH (SB possible and definite, DLCC ≥ 6 , and FAMCAT > 1 in 200) were then referred to the Specialist Lipid Clinic for confirmation through genetic testing.

Results

619 patients were recruited during the study period, out of which 65 (10.50%) were identified as high risk of FH by fulfilling all three SB, DLCC and FAMCAT criteria (7, 1.13%), two criteria (11, 1.78%) and one criteria (47, 7.59%). As a single criteria, DLCC identified 19 patients. SB and FAMCAT identified 15 and 13 patients, respectively. Most of the patients identified as high risk were male (40, 61.54%), of Malay ethnicity (55, 84.62%), and married (57, 87.69%). The mean age was 58.09 (SD 12.44).

Conclusion

Thus far, recruiting patients to Specialist Lipid Clinic for genetic testing is feasible. Different criteria resulted in different detection and referral rates for FH. Future research will be to identify the most accurate criteria for identifying FH in the Malaysian primary care setting.

The social cure of social prescribing: a mixed-methods study on the benefits of social connectedness on quality and effectiveness of care provision

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Introduction

Healthcare commissioners/providers have recently begun implementing novel initiatives that could reduce the economic burden of loneliness. One such initiative is social prescribing (SP) which represents a departure from traditional medical models of healthcare. Rather than focussing on medication provision, SP involves addressing patients' needs holistically. This study aimed to assess the degree to which the 'social cure' model of psychosocial health captures the understandings and experiences of healthcare staff and patients in a social prescribing pathway and the degree to which these psychosocial processes predict the effect of the pathway on healthcare usage.

Method

Design Mixed-methods: Study 1: semi-structured interviews; study 2: longitudinal survey.

Setting An English SP pathway delivered between 2017 and 2019.

Participants Study 1: general practitioners (GPs) (n=7), healthcare providers (n=9) and service users (n=19). Study 2: 630 patients engaging with SP pathway at a 4-month follow-up after initial referral assessment.

Intervention Chronically ill patients experiencing loneliness referred onto SP pathway and meeting with a health coach and/or link worker, with possible further referral to existing or newly created relevant third-sector groups.

Main outcome measure Study 1: health providers and users' qualitative perspectives on the experience of the pathway and social determinants of health. Study 2: patients' primary care usage.

Results

Healthcare providers recognised the importance of social factors in determining patient well-being, and reason for presentation at primary care. They viewed SP as a potentially effective solution to such problems. Patients valued the different social relationships they created through the SP pathway, including those with link workers, groups and community. Group memberships quantitatively predicted primary care usage, and this was mediated by increases in community belonging and reduced loneliness.

Conclusion

Methodological triangulation offers robust conclusions that 'social cure' processes explain the efficacy of SP, which can reduce primary care usage through increasing social connectedness (group membership and community belonging) and reducing loneliness. Recommendations for integrating social cure processes into SP initiatives are discussed.

Factors associated with differential performance in the MRCGP Clinical Skills Assessment: cross-sectional study

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Background

Previous studies investigating performance in medical exams suggest that personal, educational, cultural or psychological differences may be factors in differential attainment by candidate attributes such as ethnicity, gender or qualification overseas. The extent to which such factors contribute to differential attainment is largely unexplored. We aimed to examine the relative contribution of these factors to differential attainment in a licensing clinical skills assessment.

Methods

We used a self-administered questionnaire to candidates immediately after the Clinical Skills Assessment of the UK Membership of the Royal College General Practitioners (MRCGP) licensing exam. Candidates volunteered to participate and agreed to link their questionnaire, exam and demographic data. We analysed data using SPSS 25 to produce descriptive statistics, comparisons and multivariable regression to model factors independently associated with passing the CSA.

Results

Overall 44.6% (209 of 469) CSA candidates completed the questionnaire between 30 November and 6 December 2018, and consented to data linkage. Multivariable logistic regression showed that being older (odds ratio [OR] 0.86, 95% confidence interval ([CI] 0.75 – 0.99, $p=0.04$), male (vs female OR 0.22, 95% CI 0.06 - 0.79, $P=0.02$), of minority ethnic status (vs white British OR 0.04, 95% CI 0.01- 0.31, $P=0.002$) or having a negative vs positive relationship with their trainer (OR 0.11, 95% CI 0.01 – 0.88, $p=0.04$) were associated with a reduced chance of passing the CSA. There was no association with passing or failing in International Medical Graduates (IMG vs UK trained doctors OR 0.38, 95% CI 0.08 -1.91, $p=0.24$), those who preferred the English language (vs others OR 1.20, 95% 0.13 - 10.72, $p=0.87$) or candidates' estimated score (OR 1.07, 95% CI 0.99 - 1.16, $p=0.07$). Candidates who did not declare a specific learning difficulty vs those who did had a greater chance of passing the CSA (OR 11.49, 95% CI 1.27 – 103.51, $p=0.03$).

Conclusion

CSA failure was associated with older age, male sex, minority ethnic status, specific learning difficulty, and a negative relationship with the candidate's trainer but not with being an IMG, preferring English language or estimated score. Further research is needed to test interventions designed to reduce differential CSA performance.

Patients' experiences and perceptions of Guillain-Barré syndrome: a systematic review and meta-synthesis of qualitative research

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Introduction: Guillain-Barré syndrome (GBS) is an immune-mediated polyradiculoneuropathy, with an incidence of 1-2/100,000 per year and variable severity. Due to the rarity of this condition there is limited evidence exploring the experiences of patients with GBS. The aim of this study was to review patients' experiences and perceptions of GBS, by conducting a systematic review and thematic meta-synthesis of qualitative studies of patients' experiences of GBS.

Methods: We searched twelve electronic databases, supplemented with internet searches and forward and backward citation tracking from the included studies and review articles. Data were synthesised thematically following the Thomas and Harden approach. The CASP Qualitative Checklist was used to assess risk of bias in included studies.

Results: Our search strategy identified a total of 4,204 citations and after removing duplicates and excluding citations based on title and abstract, and full-text screening, five studies were included in the review and meta-synthesis; all included studies were considered of acceptable quality. Through an iterative approach, we developed six analytical themes. The first theme discusses the patients' initial symptoms, how they struggled to receive a diagnosis, their feelings of uncertainty, and how hope of recovery was their main motivation forward. The second theme summarises the effects of GBS on all aspects of patients' lives, including their ongoing physical difficulties (e.g. pain and fatigue), their psychological well-being (e.g. anxiety and fear), their family and social lives, as well as their ability to work. The third theme describes how participants were not satisfied with the support they received from healthcare services and that this was considered a key barrier preventing their recovery from GBS. In contrast, the fourth theme discussed how some participants had positive feelings towards the healthcare and the support they received from family, friends and peers. The final two themes discuss the participants' path to recovery through achieving milestones and slowly accepting their situation. Their desire to go back to their pre-GBS selves, and the importance of re-valuing life are also presented.

Conclusion: Despite the variety of experiences, it was evident that being diagnosed with and surviving GBS was a life-changing experience for all participants.

Secondary care visits by children and young people prescribed antidepressants in primary care: a descriptive study using the QResearch database

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Introduction

UK guidelines for the treatment of depression in children and young people recommend that antidepressants should only be initiated following assessment and diagnosis by a child and adolescent psychiatrist. This study aimed to summarise visits to specialists and indications recorded around the time of antidepressant initiation in children and young people in UK primary care.

Methods

English primary care electronic health records provided by QResearch were linked to Hospital Episode Statistics secondary care data. The study included children and young people aged 5 to 17 who were first prescribed antidepressants between 2006 and 2017. Records of visits to paediatric or psychiatric specialists and potential indications (from a pre-specified list) were extracted. Events were counted if recorded less than 12 months before or 6 months after the first antidepressant prescription.

Results

In total, 33,031 5-17-year-olds were included. Overall, 12,149 (37%) visited a paediatrician or a psychiatric specialist in the specified time window. Most recorded visits (7154, 22% of the study population) were to paediatricians. Of those prescribed selective serotonin reuptake inhibitors, 5463/22,130 (25%) visited a child and adolescent psychiatrist. Overall, 17,972 (54%) patients had a record of at least one of the pre-specified indications. Depression was recorded most frequently overall (12,501, 38%), followed by anxiety (4155, 13%).

Conclusions

Antidepressants are frequently prescribed to children and young people in primary care without the recommended involvement of specialists. These findings may justify both greater training for GPs in child and adolescent mental health, and greater access to specialist care and non-pharmacological treatments.

Reducing the Variation In Achieving The 3 Treatment Targets In Primary Care: A Service Evaluation Audit

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Aim

To reduce the variation that exists across general practices in achievement of the 3 treatment targets (Blood pressure [BP], cholesterol and glycaemia) locally.

Methods

- Providing targeted support, education and mentoring in practice via joint clinics with diabetes specialist nurses (DSN) and surgery staff. The DSNs teach and make changes to patient care then return in 3 months to assess impact on patient outcomes.
- Providing a DSN to audit the medical records of 10 people living with diabetes and hypertension (HTN). The nurse would recommend changes and return to re-audit to assess impact on patient outcomes.

Results

Number of patients seen in the joint clinics= 347

- HbA1c result: -2.3mmol/mol
- BP result:
 - Systolic BP= -9.8mmHg
 - Diastolic BP= -3mmHg
- Total Cholesterol (TC) result: -0.007
- Triglycerides result: -0.03

Number of BP patients audited= 399

- Systolic BP= -9.91mmHg
- Diastolic BP= -6.13mmHg

Both arms of the study received positive feedback from the healthcare professionals.

Conclusions

The change in patient outcomes speak for themselves considering the DSN had only made one visit. In both arms of the study the reductions in BP came close to a reduction of 10mmHg. This would have reduced those patients' risk of major CV events by 20%. The project received further funding to continue for another year. NDA data (2018/19) showed improvement for 90% of the practices in LLR! While we can't say this was due entirely to the project it would have had an impact.