

What is the case for care home medicine? The geriatrician's perspective

AL Gordon

Consultant and Honorary Associate Professor in Medicine of Older People, Queen's Medical Centre, Nottingham, UK

ABSTRACT This paper makes the case for a specific set of competencies required to adequately care for care home residents. It proposes that staff with these competencies need to work in an appropriate service context in order to achieve the best outcomes. These competencies and contextual factors are not currently recognised or championed by any single constituency within the existing healthcare infrastructure and there is a case that service delivery would be well served by recognition that 'care home medicine' is a distinct entity.

KEYWORDS frail older adults, health services for the aged, nursing homes, primary health care, residential facilities

DECLARATION OF INTERESTS ALG was a researcher on the Medical Crises in Older People Programme Grant and the Optimal Study, both of which are cited in this paper. These were funded by the UK National Institute of Health Research (NIHR) with project numbers RP-PG-0407-10147 and HSD&R-11-1021-02, respectively. The views expressed in this paper are those of ALG and not necessarily those of the NHS, the NIHR or the Department of Health.

Correspondence to AL Gordon
Department of Health Care of
Older People
B Floor, South Block
Queen's Medical Centre
Nottingham NG7 2UH

e-mail adam.gordon@nottingham.

INTRODUCTION

The number of older people living in care homes in the UK is currently 432,000. This bed base is three times larger than that represented by the UK acute hospital sector. Homes are run either with or without 24-hour on-site nursing staff, and are known as nursing and residential homes, respectively. The homes provide dayto-day care, most of which takes the form of assistance with basic and extended activities of daily living and is labeled as social care. Nursing homes may also provide some components of nursing support including administration of medications and supervision of dressings. The funding of these arrangements is subject to some variation across the four UK nations because of the varying degrees of integration between health and social care. The bulk of healthcare in care homes, however, remains the responsibility of the NHS across all four jurisdictions. This is, for the most part, led by general practitioners (GPs) under the auspices of the General Medical Services (GMS) contract.

There is growing recognition that caring for this patient cohort is more challenging than for those living in their own homes. Care homes have been the focus of specific attention in government reports including the NHS 5-year forward view in England,² Reshaping Care for Older People in Scotland³ and A Place to Call Home in Wales,⁴ all of which have highlighted the failure of existing models to meet patients' needs. This is, in part, a factor of the medical complexity represented by the patient cohort and in part due to the issues of negotiating complex care over multiple organisational

boundaries including health and social, primary and secondary, public and private care.

WHO LIVES IN UK CARE HOMES?

Care homes in the UK provide 'accommodation, together with nursing or personal care, for persons who are or have been ill, who have or have had a mental disorder, who are disabled or infirm, or are or have been dependent on alcohol or drugs'. 5 Care homes for those with learning disabilities, and alcohol and drug dependency, are separated out by specialist registration. Only 8.6% of care home residents are under 60, with an average age of 65 and a female:male ratio of 2.7:1.6 The care home population remained static in size between 2001 and 2011, despite an 11% growth in the UK population over 65 years of age during the same period. This has, unsurprisingly, been accompanied by an increase in the dependency of the population seen in care homes, as the most disabled patients fill the available space.

Care home residents have complex medical needs as illustrated in a UK care home cohort study, published in 2013, which drew from a representative sample of 227 residents across 11 East Midlands care homes. It found the average resident to have six diagnoses and take eight medications. Of these, 75% had cognitive impairment and 66% behavioural symptoms. Behavioural symptoms, where present, were characteristically frequent (occurring once or more per week) but mild (amenable to behavioural interventions), with agitation, nervousness and irritability being the most common. A





total of 57% of residents had urinary incontinence and 42% had faecal incontinence. In addition, 30% had malnutrition and a further 56% were at risk of this.

Large population-based studies have reported 26% of care home residents to have a life-expectancy of I year or less. Average life expectancy has been calculated at I year for nursing home residents and 2 years for those living in residential homes, although these headline figures belie a small proportion of residents who live in care homes for much longer periods.

WHAT IS THE CURRENT MODEL OF HEALTHCARE IN UK CARE HOMES AND DOES IT MEET RESIDENTS' NEEDS?

There is no obligation under existing legislation for care home residents to be treated any differently from the population at large and, despite pockets of excellence, the flexible framework of GMS has led to unacceptable variability in healthcare.

A recent review identified 15 surveys of healthcare provision to UK care homes, with five focusing on general medical services and ten focusing on specialist support or topic-specific services. 10 The surveys adopted a variety of different methodologies and sampled different care home and healthcare populations but, considered together, highlight deficits in healthcare provision which are consistent and distributed across the country. A plurality of models of primary care medical and nursing provision was noted. The largest number of practices visiting one care home was 30 - although some had a single, designated general practitioner. Consultation arrangements were variable. Some GPs did weekly clinics, while others visited only on request. Up to eight different types of nurses were reported to be involved in providing in-reach services, with multiple different nurses often providing in-reach to the same home. Access to specialist services was even more variable with up to 57% of residents unable to access all services required. There was considerable variability in access between regions to an array of services including speech and language, occupational therapy, physiotherapy, chiropody and dental services. In an English national survey by the Care Quality Commission, 25% of NHS trusts self-reported inequality of access to physiotherapy and occupational therapy and 35% to district nursing, to the disadvantage of care home residents, within their own areas."

This variability is mirrored in family and residents' views, with only 56% of residents reporting in one survey that they have good access to and support from GPs, while only 55% of staff reported that residents got enough support from GPs."

Prescribing in care homes is a particular area of concern. The Care Home Use of Medicines study considered prescribing in 256 residents across 55 homes and found 69.5% of residents to be subject to one or more error, with a mean of 1.9 errors per participant.¹²

Residents use primary and secondary care more than similarly aged people living outside of long-term care.7 They are at higher risk of re-admission following an acute presentation.13 It remains unclear whether this represents appropriate use of services by a cohort of dependent patients with multiple morbidities, or whether it represents a missed opportunity for earlier identification and treatment of health problems, with subsequent admission avoidance, which might be provided by more proactive models of care. Some studies have attempted to consider whether admissions to hospitals are avoidable on the basis of retrospective or prospective review of either case notes or hospital admissions databases¹⁴ but these observations have been confounded by the inadequacy of hospital coding (the frequent recourse to urinary tract infection as an explanation for non-specific decline) and the inability of hospital computer systems to accurately identify care home residency.

A number of studies have considered the reasons for mismatch between the recognised healthcare need among care home residents and the service provided in response. Prevailing structures for incentivising practice seem ill-suited to the care home cohort. A 2008 study conducted in England and Wales, using large GP databases to analyse compliance with 16 indicators from the UK Quality and Outcomes Framework across 10,300 care home residents,15 found that attainment of quality indicators was significantly lower for residents of care homes than for those in the community for 14 of 16 indicators. The largest differences were for prescribing in heart disease, monitoring of diabetes, monitoring hypothyroidism and blood pressure monitoring in people with stroke. Residents of care homes were more likely to be identified by their doctor as unsuitable or non-consenting for Quality and Outcomes Framework indicators and therefore excluded from targets. The exclusion rate was 33.7% for stroke and 34.5% for diabetes.

A detailed interview study which explored the views of GPs, care home staff and managers, and other health professionals providing in-reach services to care homes¹⁶ identified several key themes underpinning variation in practice. These were very similar to the themes which underpinned prescribing errors identified in the Care Home Use of Medicines study and are outlined in Table I.



TABLE I Barriers to delivering effective healthcare in care homes - insights from the Staff Interviews in Care Homes study¹⁶

Theme	Description
Complexity of care home	Residents' healthcare needs are complex and their clinical trajectories are unpredictable. It can
residents	be difficult to separate fluctuations which are a regular and normal part of the clinical picture
	from sudden acute decline which indicates a significant underlying pathology.
Lack of time	Detailed assessments of complex patients takes time. This is not recognised in existing job
	planning for GPs, or in the staffing structure of care homes.
Not enough training	Staff from both NHS primary care and care homes felt under-equipped to manage patients with
	multiple co-existing long-term conditions, polypharmacy, marked physical dependency and
	cognitive/behavioural symptoms. They felt more specialised training was required.
Reactivity vs proactivity	Staff from both NHS primary care and care homes reported being uncertain about the correct
	balance between pro-active comprehensive assessment and responding to acute crises; and
	where limited time and human resources should be applied to greatest benefit.
Unclear roles and	Because legislation about responsibility for healthcare in care homes is unclear, care home and
responsibilities	healthcare staff can often be uncertain where their role begins or ends. Either they can replicate
	activity, with consequent waste of resource, or important issues can be neglected as no provider
	recognises the problem as 'belonging' to them.

HOW MIGHT THE CURRENT MODEL OF CARE CHANGE TO MEET RESIDENTS' NEEDS?

The picture, as described thus far, is of a complex patient cohort, with multiple medical conditions and profound physical dependency. There is evidence that traditional models of ad hoc and reactive health care delivery do not provide care sufficient to meet these needs and that both the (dis-)organisation of care and lack of specific expertise in the management of complex patients in later life play a role in this.

In response, a number of innovative models of healthcare provision have started to emerge. These have been developed at a regional or local level in response to prevailing concerns within specific health and social care communities and therefore are varied in form and function. A number of overarching principles are, however, evident.¹⁷

- There is increased emphasis on structured relationships between GPs and care homes, frequently with emphasis on 1:1 relationships between practices and homes.
- There is a focus on detailed health assessment at the time of arrival in the care home.
- There is often a focus on regular attendance by healthcare professionals – for example once every I–2 weeks – at the care home.
- Arrangements are often put in place for scheduled review for individual residents – for example at 6-monthly intervals following admission – to review medical problems and prescribed medications.
- There may be changes to models of remuneration or incentivisation.
- There may be changes in how community teams are structured, with more emphasis on multidisciplinary working.

- There may be direct referral pathways to secondary care experts, such as community or hospital-based geriatricians.
- In some instances, geriatrician-led teams have taken over primary care for care home residents completely, although this is the exception rather than the rule.

A number of these local initiatives have reported benefits including: reduced hospital admissions; ^{18,19} reduced prescriptions; ²⁰ improved staff and resident satisfaction; ²¹ and improved management of patients at the end-of-life. ²² Many of the principles identified above have subsequently been included in national recommendations, most notably the British Geriatrics Society's Guidance for Commissioning Healthcare in Care Homes ²³ which, although couched in the purchaser-provider split language of NHS England, outlines principles of good practice which apply to healthcare provision for patients living in care homes across all four UK nations.

An interview study by Goodman et al.²⁴ considered the issues of designing health services for the care home sector with stakeholders including care home providers, regulators, commissioners and providers of services and clinical staff. They identified three overlapping principles:

 Investment to foster continuity and shared learning between visiting NHS staff and care home staff – an example of this is the MyHomeLife²⁵ scheme where building communities of practice has enabled care homes to organise and integrate more effectively with NHS commissioning and service delivery infrastructures to develop a sense of shared ownership.





- The provision of age-appropriate clinical services examples of this are: putting in place GPs with special interests, Advanced Nurse Practitioners or direct referral pathways to community geriatricians.
- Governance arrangements that used contractual and financial incentives to specify a minimum service that care homes should receive – examples of this, in England, are through locally enhanced service contracts that structure GP payments around regular scheduled contact with care home residents.

The first of these principles seems to be particularly important to ensure that service models, once implemented, are sustained. Davies²⁶ reported the average life-expectancy of a service improvement initiative in care homes to be less than 3 years and suggested that this lack of sustainability was related to ineffective, or complete lack of, collaboration with the care home sector. This results in interventions which miss the expertise of care home staff, their important role in care co-ordination and their possible contribution to embedding proactive models into daily practice. This has been supported by qualitative research undertaken by the MyHomeLife group.²⁵

It is unclear which of these principles are active ingredients, which are essential for quality care in care homes, and what 'dose' of each is required to deliver the best outcomes for patients. The National Institute of Health Research-funded Optimal study^{27,28} is currently considering each of these principles by following three differing models of practice, in different English regions, to identify which combination seems to deliver the best outcomes for residents. It will consider the impact of service models on medication use, admissions to hospital, emergency department attendances, and out-of-hours GP and ambulance calls.

Although the broad principles which shape effective care are becoming clearer, there remains some uncertainty about how practical day-to-day care should be structured. Reflecting upon recent demonstration projects, Bowman and Meyer²⁹ described a model of care to take account of advanced frailty in care home residents. This model, which they called 'formative care', builds upon the process of care for frail older people known as Comprehensive Geriatric Assessment (CGA), tailoring this to the specific challenges of care home residents, many of whom are in physiological and functional decline (which they defined as 'progressive dwindling'). There are certainly broad similarities between the cohort described in care homes, in terms of functional status and their patterns of morbidity and mortality, and those other cohorts where CGA has been demonstrated to work.30

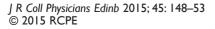
CGA has been shown in large meta-analyses to improve outcomes for older people including improved physical and cognitive function, reduced mortality and re-admissions to hospital.31 lts evidence-base has predominantly derived from acute hospital settings, but it also improves outcomes in community settings.32 CGA has been described for the non-specialist reader in other publications³³ but is, in brief, a model of care driven by comprehensive assessment taking account of medical, psychological, functional, social environmental issues. It uses a multi-disciplinary team with a nurse, doctor, physiotherapist and occupational therapist at its core and draws upon broader expertise as required. It establishes a management plan with clearly stated and measurable goals, with case management to review these at intervals determined by individual patient priorities. It is important to realise that CGA is increasingly used to describe a process of care that does not stop at initial assessment, but also includes the ensuing process of case management and review. It is also important to recognise that CGA is not predicated upon involvement of a geriatrician and it has effectively been delivered without specialty involvement. Indeed recently policy statements from the British Geriatrics Society, the professional body representing geriatricians, have tended to emphasise the need for other doctors to take on the organising principles of this working model, given that ubiquitous delivery by geriatricians is an unrealisable ambition in the face of prevailing demographic trends.34

SO WHAT MIGHT CARE HOME MEDICINE LOOK LIKE?

If the above descriptors and principles are accepted, care home medicine will be required:

- To be structured and pro-active: with detailed assessment at admission and at regular intervals thereafter (if the tenets of CGA are taken on-board, follow-up intervals will be determined by problems identified at initial assessment, rather than adopting 'one-size-fits-all' approaches to interval review, but will be documented and adhered to).
- To be embedded in multidisciplinary working: with routine, if not universal, assessment by medical, nursing, occupational therapy and physiotherapy professionals.
- To be delivered in partnership with care home staff: where they are seen as an equal member of the multidisciplinary team, informing assessment and negotiating the management plan.
- To be supported by case-management: where one member of the multidisciplinary team is seen as being in overall charge of the management plan, recognises themselves as being so, and is recognised by others as being so. The logical case manager may vary from patent-to-patient but could be any of carer, nurse,







- doctor or allied health professional and could be drawn from either NHS or care home staff.
- To be expert in the problems commonly seen in care home residents: with specific training and experience in management of multiple long-term conditions, polypharmacy, immobility, incontinence, cognitive impairment, behavioural symptoms and malnutrition. The ubiquity of these issues is such that any model that depends on 'drafting in expertise' will be regularly deficient.

These models of care will need to be supported by models of commissioning that are sophisticated and respond to the emerging evidence. Incentives and targets specified in isolation are unlikely to be helpful, particularly if considered on a condition-by-condition basis. Rather they will have to encompass models of multi-morbidity and frailty, support effective collaboration with the care home sector and build the set of competencies required to deliver effective care through appropriate training infrastructures. Key performance indicators for such services will have to take account of uncertainty over what can be achieved. Those that rely solely upon hospital admission avoidance, for example, may fall foul of the lack of clarity about whether admissions from care homes truly can be averted.

The European Union Geriatric Medicine Society recently surveyed the mandatorily stated standards of medical care for nursing home residents in Europe. It

recommended that geriatricians, old age psychiatrists and family doctors across European countries engage more formally in the development of care standards and training to support doctors working in nursing homes.³⁵ A subsequent draft document from this group has gone on to emphasise the importance of training in geriatric medicine. This, perhaps, misses the fact that postgraduate curricula in geriatric medicine, in those countries where they have been developed, place emphasis upon hospital-based training and competencies. A new specialty of care home medicine, if one is to emerge, will need to draw competencies from primary care and old age psychiatry curricula, as well as emphasising the expertise in common syndromes in later life that underpin training in geriatric medicine.

Care home residents are a special case. They represent the most frail, most dependent, most vulnerable members of our society. They manifest medical complexity with a consistency and regularity seen in few, if any, other existing sectors of care. Prevailing models of care and routine practice have been demonstrated to be inadequate to meet their needs. This article has outlined some possible approaches to delivering a more appropriate balance of skills and expertise, underpinned by models of commissioning that support them. Whether this is called 'care home medicine' or recognised in any formal way as a subspecialty is perhaps a moot point – but the special case must be recognised and specific responses to the challenge developed if we are to move care forward.

REFERENCES

- I Laing & Buisson. Care of the Elderly People Market Survey, 2009. London: Laing and Buisson; 2010.
- 2 NHS England. Five year forward view. Community Pract 2014; 87: 4.
- NHS Scotland. Reshaping Care for Older People. Edinburgh; 2013. http://www.gov.scot/Topics/Health/Support-Social-Care/Support/Older-People/ReshapingCare (accessed 8/5/2015)
- 4 Older People's Commissioner for Wales. A Place to Call Home? Care Home Review. Cardiff; 2014. http://www.olderpeoplewales. com/en/reviews/residential_care_review/reviewreport.aspx (accessed 8/5/2015)
- 5 Great Britain Department of Health. Care Standards Act 2000. London: Stationery Office; 2001.
- 6 Office for National Statistics. Changes in the Older Care Home Population at Local Authority Level between 2001 and 2011. London; 2012. http://www.ons.gov.uk/ons/dcp171776_388099.pdf (accessed 18/5/2015)
- 7 Gordon AL, Franklin M, Bradshaw L et al. Health status of UK care home residents: a cohort study. Age Ageing 2014; 43: 97–103. http:// dx.doi.org/10.1093/ageing/aft077
- 8 Shah SM, Carey IM, Harris T et al. Mortality in older care home residents in England and Wales. Age Ageing 2013; 42: 209–15. http:// dx.doi.org/10.1093/ageing/afs174
- 9 Bebbington A, Darton R, Bartholomew R et al. Survey of Admissions to Residential and Nursing Home Care. Final report of the 42 month follow-up. PSSRU discussion paper No 1675. Canterbury: PSSRU; 2000. http://www.pssru.ac.uk/pdf/dp1675.pdf (accessed 8/5/2015)

- 10 Iliffe S, Davies SL, Gordon AL et al. Provision of NHS generalist and specialist services to care homes in England: review of surveys. Prim Health Care Res Dev 2015; 1–16. Epub ahead of print.
- 11 Carter C. Failing the Frail: A Chaotic Approach to Commissioning Healthcare Services for Care Homes. http://www.bgs.org.uk/ campaigns/Failing_the_frail_full_report.pdf (accessed 18/5/2015).
- 12 Barber ND, Alldred DP, Raynor DK et al. Care homes' use of medicines study: prevalence, causes and potential harm of medication errors in care homes for older people. Qual Saf Health Care 2009; 18: 341–6. http://dx.doi.org/10.1136/qshc.2009.034231
- 13 Quinn T. Emergency hospital admissions from care-homes: who, why and what happens? A cross-sectional study. Gerontology 2011; 57: 115–20. http://dx.doi.org/10.1159/000314962
- 14 Briggs R, Coughlan T, Collins R et al. Nursing home residents attending the emergency department: clinical characteristics and outcomes. Q/M 2013; 106: 803–8. http://dx.doi.org/10.1093/ qjmed/hct136
- 15 Shah SM, Carey IM, Harris T et al. Quality of chronic disease care for older people in care homes and the community in a primary care pay for performance system: retrospective study. BMJ 2011; 342: d912. http://dx.doi.org/10.1136/bmj.d912
- 16 Robbins I, Gordon A, Dyas J et al. Explaining the barriers to and tensions in delivering effective healthcare in UK care homes: a qualitative study. BMJ Open 2013; 3: e003178. http://dx.doi. org/10.1136/bmjopen-2013-003178
- 17 Donald IP, Gladman J, Conroy S et al. Care home medicine in the





I R Coll Physicians Edinb 2015; 45: 148-53





- UK--in from the cold. Age Ageing 2008; 37: 618–20. http://dx.doi.org/10.1093/ageing/afn207
- 18 Cawood AL, Smith A, Pickles S et al. P133 effectiveness of implementing 'must' into care homes within Peterborough Primary Care Trust, England. Clin Nutr Suppl 2009; 4: 81. http://dx.doi. org/10.1016/S1744-1161(09)70183-8
- 19 Wild D, Foundation JR. Providing Nursing Support Within Residential Care Homes. Joseph Rowntree Foundation; 2008.
- 20 Registered Nursing Home Association. Preventing Medication Errors in Care Homes Review of Publications. http://www.rnha.co.uk/web_images/pdfs/mm%20Preventing%20Medication%20Errors%20in%20Care%20Homes%202013.pdf (accessed 8/5/2015)
- 21 Briggs D, Bright L. Reducing hospital admissions from care homes: considering the role of a local enhanced service from GPs. Working with Older People 2011; 15: 4–12. http://dx.doi.org/10.5042/ wwop.2011.0114
- 22 Hockley J, Watson J, Oxenham D et al. The integrated implementation of two end-of-life care tools in nursing care homes in the UK: an in-depth evaluation. *Palliat Med* 2010; 24: 828–38. http://dx.doi.org/10.1177/0269216310373162
- 23 BGS Commissioning Guidance High Quality Health Care for Older Care Home Residents. http://www.bgs.org.uk/campaigns/2013commissioning/Commissioning_2013.pdf (accessed 8/5/2015).
- 24 Goodman C, Davies SL, Gordon AL et al. Relationships, Expertise, Incentives, and Governance: Supporting Care Home Residents' Access to Health Care. An Interview Study From England. J Am Med Dir Assoc 2015; 16: 427–32. http://dx.doi.org/10.1016/j.iamda.2015.01.072
- 25 Owen T, Meyer J, Bentley J et al. Better partnership between care homes and the NHS: Findings from the My Home Life programme. J Care Serv Manag 2008; 3: 96–106.
- 26 Davies SL, Goodman C, Bunn F et al. A systematic review of integrated working between care homes and health care services. BMC Health Serv Res 2011; 11: 320. http://dx.doi.org/10.1186/1472-6963-11-320

- 27 Goodman C, Gordon AL, Martin F et al. Effective health care for older people resident in care homes: the optimal study protocol for realist review. Syst Rev 2014; 3: 49. http://dx.doi. org/10.1186/2046-4053-3-49
- 28 Gordon AL, Goodman C, Dening T et al. The optimal study: describing the key components of optimal health care delivery to UK care home residents: a research protocol. *J Am Med Dir Assoc* 2014; 15: 681–6. http://dx.doi.org/10.1016/j.jamda.2014.06.011
- 29 Bowman C, Meyer J. Formative Care: Defining the purpose and clinical practice of care for the frail. J R Soc Med 2014; 107: 95–8. http://dx.doi.org/10.1177/0141076813512298
- 30 Gordon, AL. Does Comprehensive Geriatric Assessment (CGA) have a role in UK care homes? University of Nottingham; 2012. http:// eprints.nottingham.ac.uk/12619/ (accessed 18/5/2015).
- 31 Ellis G, Whitehead MA, O'Neill D et al. Comprehensive geriatric assessment for older adults admitted to hospital. *Cochrane Database* Syst Rev 2011: CD006211. http://dx.doi.org/10.1002/14651858.CD006211.pub2
- 32 Beswick AD, Rees K, Dieppe P et al. Complex interventions to improve physical function and maintain independent living in elderly people: a systematic review and meta-analysis. *Lancet* 2008; 371: 725–35. http://dx.doi.org/10.1016/S0140-6736(08)60342-6
- 33 Welsh TJ, Gordon AL, Gladman JR. Comprehensive geriatric assessment - a guide for the non-specialist. Int J Clin Pract 2014; 68: 290–3. http://dx.doi.org/10.1111/ijcp.12313
- 34 Martin FC. The place of Geriatric Medicine and Geriatricians in the modern UK health services - BGS Position Statement. http://www.bgs. org.uk/index.php/press/2338-bgspositionstatement (accessed 8/5/2015)
- 35 Briggs R, Robinson S, Martin F et al. Standards of medical care for nursing home residents in Europe. Eur Geriatr Med 2012; 3: 365–7. http://dx.doi.org/10.1016/j.eurger.2012.07.455

THE COLLEGE JOURNAL PRIZE

The College Journal Prize 2014, sponsored by the Senior Fellows' Club, has been won by B Quinn et al for their paper 'A masquerading mass: an unusual presentation of IgG4-related systemic disease with tubulointerstitial nephritis'. This paper can be read in issue 2, 2014 at http://www.rcpe.ac.uk/sites/default/files/harty.pdf

A prize of £250 will be awarded to the first-named (or corresponding) author of an original research paper on a clinical topic, deemed by a panel of judges to be the best paper by a doctor-in-training (i.e. pre-consultant level) published in *The Journal of the Royal College of Physicians of Edinburgh* in issues 3 and 4, 2014 and issues 1 and 2, 2015. The paper will be selected by a panel of judges, including a senior Fellow, an active clinician and a member of the Editorial team. The prize-winner will be invited to give a short oral presentation based on his/her paper at the Trainees and Members' symposium in October 2015.

Further details may be obtained from the Editorial Office, RCPE, 9 Queen Street, Edinburgh EH2 IJQ, tel +44 (0)131 247 3666 or email editorial@rcpe.ac.uk.

