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Remote and rural General Practice in Scotland: descriptors and challenges

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Summary

All general practice in Scotland is based on a model of holistic generalist care, the key characteristics of which are recognised to be trust, coordination, continuity, flexibility, coverage, relationships, and leadership [1]. Provision of the service faces many challenges. These include increased geographical mobility of both patients and doctors, an aging demographic, multidisciplinary working, and a national shortage of GPs. A new Scottish GP contract was introduced in 2018 [2]. It focuses the role of the GP as that of 'expert medical generalist' and 'senior clinical decision maker' working within an expanded multidisciplinary team (MDT), and improving quality at a local level by practices working in clusters [3].

While these key roles and changes apply to all practices, remote and rural practice in Scotland has many distinctive features. This paper explores some of the descriptors of these and gives examples of the day to day practice of GPs working in remote and rural practices at a time of considerable change and challenge.

International Evidence

This section summarises a commissioned review of the international literature. The full review is at Appendix 1.

The international literature describes a common set of challenges for remote and rural primary care doctors and healthcare teams, and some recurring themes in the identified approaches to addressing them. Globally it is well documented that remote and rural populations have poorer access to health services than their urban counterparts. In some countries, this accompanied by poorer health status. Shortages of rural doctors and other health professionals are reported in almost all countries.

Internationally, studies in several countries show that rural GPs work longer hours than their urban counterparts. This often relates to emergency and out-of-hours (OOH) work as well as community hospital duties. These features are associated with professional satisfaction, but OOH work is associated with dissatisfaction in practitioners' families. In Australia, rural doctors are more likely than all other doctors to suffer from mental distress.

There is a growing international trend among doctors away from primary care careers. In the USA, Australia and the UK, growth in the secondary/tertiary care sector has been very substantial, while numbers of GPs has fallen or flatlined. Some evidence suggests that devaluing of clinical judgement and generalism, as well as income discrepancies contribute to this trend. A rural/urban healthcare spending gap is apparent in Australia and some other countries, and may contribute to unnecessary hospital admissions.

Creating viable rural practice models is challenging everywhere. In Australia, the nuances of rural models of care, including OOH work and emergency and procedural care 'create very particular business models'. A study of New Zealand found that national policy adjustments to ensure appropriate payments to primary general practitioners failed to adequately compensate for the costs associated with delivering personal medical care in rural communities. It concluded that targeted support for rural general practices had considerable potential to address persisting rural health inequities.

A major survey of Australian rural doctors identified seven major contributing factors to practice viability: practice characteristics, income, personal circumstances, workforce, and community characteristics, practice characteristics, personal circumstances, and family circumstances. It concluded that to maintain rural practices' viability and keep rural doctors in their rural locations, a multifaceted, systematic response is required.

More collaborative multiprofessional working is identified as presenting an opportunity to address population healthcare needs and workforce challenges. A 2019 Australian report suggests the development of a pipeline approach for training Rural Generalist Medical Practitioners who provide a broad and expanded scope of practice, supported by Rural Generalist AHPs is suggested in a 2019 Australian report. In the Netherlands, to address persistent rural workforce shortages, the Dutch government has implemented a system of health workforce planning and forecasting, and ongoing adaptation training inflows in accordance with these. These efforts are supplemented with regional action plans. In all countries, rurally targeted selection, recruitment and training are essential.

Some of the common themes in the approaches to addressing the challenges facing rural doctors that are contributing to chronic workforce shortages relate to taking a systematic approach to recognising, measuring and developing planning and policies which reflect the distinctions of practice in rural and remote locations. This is described as 'rural-proofing' in the UK [27,28].

As well as a systematic approach, contextualising solutions to local realities and situations is clearly important. Adequate and responsive information systems, which are often lacking in rural areas are required. A significant issue is to identify sentinel service indicators which reflect quality, standards of care and performance. Community involvement and GP succession planning are also crucial.

It is significant that much of the literature on remote and rural general practice comes from outside Europe. It is worth highlighting two additional papers from Europe. A paper from Ireland demonstrated major differences between rural and urban practice there and suggested that more formal undergraduate and postgraduate programmes in rural areas were needed to prepare the rural workforce of the future [5]. A recent paper from Germany found that 'compared to urban GPs, GPs from rural regions portray themselves more strongly as a family physician who accompanies patients 'from the cradle to the grave' and are responsible for the treatment of any medical issue. Rural GPs establish a close relationship with their patients and considered this as beneficial for the treatment relationship. ' [6]

In addition, the working party on rural practice of the World Organisation of National Colleges and Academies of Family Medicine/General Practice (WONCA) recently revisited the World Health Organisation (WHO) declaration of Alma-Ata of 1978. Alma-Ata identified the global development of primary care as key to attainment of 'Health for All'. The WONCA declaration summarises six priority areas to move forward in order to achieve 'Health for All Rural People' (HARP) in 2018. These are: equity and access, rural proofing of policy, health system development, educating a fit for purpose workforce, realigning research funding to rural populations, and developing health systems sensitive to local cultures, languages and traditions. [4].

UK and Scottish context and history

The RCGP Occasional Paper 'Rural General Practice in the United Kingdom' was published in 1995 [7] and addressed rural health needs, differences between urban and rural practice, teamwork, rural deprivation, community hospitals and education. Rural Healthcare published in 1998 [8], remains the only UK textbook on rural medical practice but has not been updated since.

Scotland is by far the most rural part of the UK. In the Scottish Government's 2016 urban rural classification [9], 2% of land area is classified as either 'large urban' or 'other urban', 28% is classified as 'accessible rural' and 70% as 'remote rural'. 70% of Scots live in 'large' or 'other urban' areas, 19% in 'accessible rural' areas and 11% in 'remote rural' areas [9]. Thus 30% live in an area classified as rural. While the most remote populations are in the Highlands and Islands territorial boards, it is important to note that Scottish Borders, Dumfries and Galloway, Grampian, Tayside and Ayrshire & Arran Health Boards also have significant rural populations. Both geography and weather are well recognised to present challenges to the provision of 24 hour healthcare, as well as to other services such as education and social care. Rural areas of Scotland have a demographic distribution of patients skewed towards older age groups. Rural practices provide a disproportionate amount of palliative care [10]. They also often have to cope with a large influx of visitors during the summer months, who may present with acute conditions, exacerbations of long-term conditions or with trauma following outdoor activities [10].

The challenges of providing rural general practice in Scotland were first highlighted by the 1912 Dewar report [11]; this was highlighted by the RCGP Scotland centenary activities of 2012. An important narrative and photographic record of the work and life of single-handed GPs was published in 2000 [12].

The Scottish Executive Remote and Rural Areas Initiative (RARARI) ran from 2000 to 2004. Their Solutions group reported in 2002 and suggested GP contractual refinements for rural areas, better access to care, skills development programmes for all clinical cadres and improved recruitment and retention strategies. A formal proposal from RARARI which was not developed, was for a multidisciplinary Faculty of Remote and Rural Healthcare.

Scottish Government published a detailed report on 'Delivering for remote and rural healthcare' in 2008.This covered among other topics, patient experience, access, training the workforce and the rural general hospital model. It also anticipated the growth of the extended multidisciplinary team in primary care [10]. A 2014 policy paper from RCGP Scotland summarised current issues affecting sustainability of rural general practice. These included connectivity (mobile phone/broadband), poor transport links, fragility of support services, workload (including the 24-hour commitment for some), education and training, professional and social isolation, including adverse effects on family life [13].

A series of practical recommendations to address these included rural proofing of contracts, improving connectivity and facilitating selection of medical students from rural areas as well as more undergraduate student time in rural practices.

The Inverness based Centre for Rural Health, under the University of Aberdeen, carries out research on complex interventions, child health and development, and use of technology in rural areas [14]. The Scottish Rural Medicine Collaborative has been recently established by Scottish Government to 'develop ways to improve the recruitment and retention of GPs in Scotland' [15].

There has been progress in medical education at undergraduate and postgraduate levels for rural practice in Scotland. At an undergraduate medical school level, the Universities of Dundee and Aberdeen have placements in remote and rural areas across Scotland [16,17]. The new Scottish Graduate Entry Medical School (SCOTGEM) which took its first intake in 2019, aims to produce community orientated doctors with a focus on remote and rural practice [18]. A recent article suggests ideas for success in establishing new medical schools. However, some of these ideas—engaging communities, professional groups and local individuals, developing an educational model that is relevant to context, planning for adequate teaching capacity, choosing the right educators and building in evaluation are essential for *all* medical schools, especially those planning an expansion of numbers [19].

In terms of postgraduate training for rural practice, NES has developed a rural training track for GP trainees who are interested in a rural career [20]. There is good evidence that the longstanding post CCT NHS Education Scotland Rural Fellowships are effective in recruiting and have a retention rate of 71% for Scottish rural practice [21].

GP Workforce challenges

Scotland in 2019 faces a considerable challenge currently in sustaining and developing the GP workforce. An ageing GP workforce and continuing recruitment and retention challenges present difficulties for the target of 800 more GPs by 2028 set by the Scottish Government. 24% of GP practices responding to the 2017 Primary Care Workforce Survey reported a vacancy, compared with 9% in 2013 [22].

Estimated whole time equivalent (WTE) numbers of GPs in Scotland fell from 3735 to 3575 between 2013 and 2017 [23]. While many health boards in Scotland show falling GP numbers, there were striking estimated WTE declines between 2013 and 2017 in some health boards with rural populations: Dumfries and Galloway (125 to 101), Grampian (400 to 371), Shetland (21 to 14), and Western Isles (30 to 24). GP vacancy rates are highest in Shetland, Dumfries & Galloway and Western Isles. However, numbers of GPs in Orkney have risen from 20 to 30, suggesting a mixed picture for recruitment across Scotland [23].

Features of Scottish remote and rural general practice

Despite considerable work on recruitment and retention of rural GPs, there is surprisingly little published work on the day to day work that these GPs routinely do. For this paper, five GPs (2 female, 3 male), living and working in remote and rural areas of Scotland were asked to provide a 500 word description of the content of their daily work. Post CCT rural fellows also were asked for up to 500 words on their experience of working in remote and rural practices across Scotland. Two responses (one female, one male) are included. The table below shows some descriptors of remote and rural practice as set out by GPs and rural fellows.

Emergency care of patients (rural GP can often be first on the scene before paramedic in some rural areas)	A. After trauma (road traffic or agricultural). Waits for ambulance (road/ fixed wing or helicopter) can be prolonged B. Medical emergencies at home or in community hospital (potential time commitment as above) C. Psychiatric emergencies *All involve being up to date with BASICS training and carrying a wide range of emergency equipment. Many rural GPs are also voluntary first responders.*
Dispersed patient populations	May require boat, walking or off-road capability to reach isolated patients
24 hour on-call responsibility	Some island and remote practices continue to supply 24/7 care. May include emergency and community hospital responsibility
High priority given to continuity of care	In long term conditions, palliative care and supporting young people at risk of suicide. May be made easier by small practice size being the norm
Branch surgeries	Not described in detail: often involves overcoming challenges of access to records and also time pressures
Additional services *	Minor injury, minor surgery, contraceptive implants and IUDs.

*Many of these additional services are also provided in non-rural locations. However, distance and travel time for patients can make these very difficult to access and rural GPs may feel obliged to provide these services locally.

Responses from GPs demonstrate **considerable commitment** to both patients and community. A feature was the recognition that secondary care clinical services were often distant, entailing additional clinical work and system leadership:

'*We take on extended roles and develop care pathways so that patients can get their care locally.'* (GP)

The **clinical work** was often seen as personally and professionally **rewarding**:

'Rural medicine allows you to use and further develop your clinical acumen in a way that no other job does' (rural fellow)

'I don't see patients, I see people, and people whom I know on first name terms, whose families I know, whose relatives I have cared for unto death and even whose children I have helped to deliver.' (GP)

There is a **sense of pride** in being a rural GP:

'Our identity, what it means to be a rural GP is what the rest of Scotland needs to develop.' (GP)

'It is rewarding, socially accountable and needs long term trust between colleagues and the community.'(GP)

'It is traditional, holistic, person-centred lifelong medical care.' (GP)

Multiple clinical roles in **emergency care and community hospitals** were highlighted:

'I note that there is more of an emphasis on pre-hospital care in Scotland due to geographical challenges. I have already done a BASICS course and hope to become a (first) responder.' (rural fellow)

'*We are able to care for our patients in our community hospital, whether that is dealing with emergencies, the acutely unwell, trauma, or palliative care. This can be daunting at times, but it is what makes the job exciting and rewarding.'* (rural fellow)

Teams were seen as very important but sometimes challenged by workload:

'The NHS functions due to the silent goodwill of a few people: the District Nursing colleagues who volunteer to help out the over-whelmed Home Care services so that an elderly villager can have a wash and her medication administered.'

Some **concerns** were expressed about the 2018 contract:

'The idea that others would provide services traditionally met by the practice challenges what it is to be a rural GP' (GP)

'We have never defined it but being a remote and rural GP felt like the pinnacle of general practice. As our secondary care colleagues become more specialised……., the GP in search of betterment could become an expert generalist in a remote setting. A rural GP is the original expert medical generalist.'(GP)

There were also comments about the challenges of **living alongside patients** and the **benefits of living rurally:**

'Living in the community with patients encourages a high standard of care, but lack of anonymity is inevitable and sometimes an issue.' (GP)

'The locations are spectacular if you enjoy the outdoors'. (rural fellow)

'My hobbies include rock climbing, running and cycling. I craved the opportunity to live somewhere where I had a beautiful setting to do these on my doorstep'. (rural fellow)

In summary:
"Being a rural GP is very different from GP colleagues in urban areas. Not better or worse, just different.' (GP)

Challenges

Challenges mentioned by GPs include the centralisation of services such as physiotherapy to hospital settings and the transfer of treatment room and immunisation services under new contractual arrangements.

The current shortage of GPs causes difficulties for maternity and annual leave cover and major problems finding replacement partners. A shortage of physical space for administration and clinical work, education of medical students and GP trainees as well as to accommodate the growing multidisciplinary team, were mentioned by respondents. These, of course, are common problems in primary care across Scotland. A specific problem from a GP working near the Border was that of covering Scottish and English patients from four different health authorities or boards, with three different ambulance services and four different hospitals, all over 30 minutes away by road.

Discussion

This paper illustrates some specific clinical and organisational features of remote and rural general practice in Scotland. These relate mainly to the provision of emergency care, community hospital work, dealing with population sparsity and, in some cases, 24 hour responsibility. These features, as a respondent said, make rural GP '*not better, not worse, just different.*' The challenges they face—inadequate physical space and difficulties with recruitment of partners and locums are similar to those elsewhere. However, distance from urban areas and small practice size may make these workforce challenges more acute. The GPs (but not the rural fellows) who responded were all in 'remote rural areas' [9]. This is reflected in the nature of their clinical work set out above, and this may not be fully generalisable to GPs in 'accessible rural' areas, which are closer to urban centres. Much of the clinical work, in particular acute and emergency care and community hospital care, can be seen to fall into the descriptor of 'expert medical generalist' [2]. These features are close to some of the descriptors of the 'rural medical generalist' role being developed in Australia (24). It is worth noting that response times for emergencies in remote and rural areas by the Scottish Ambulance Service are challenging; it is very likely that GPs are filling this gap in some areas. More work is needed to explore this.

As 30% of Scotland's population live in rural areas, the provision of high-quality general practice is of paramount importance. A report to Scottish Government: *Undergraduate medical education in Scotland: enabling more general practice based teaching* suggests that it is especially important that Universities and rural Health Boards work collaboratively to increase remote and rural placements for medical students[29].

The international review suggests that Scotland's remote and rural healthcare issues are very similar to those in many other countries across the world. Consideration of rural proofing, a pragmatic systematic approach to ensure that the needs of rural populations are considered in the planning and delivery of services and contracts may be helpful [27,28]. Rural proofing involves a four stage process: what are the direct or indirect impacts of the proposed policy on rural areas?; what is the scale of these impacts?; what actions can you take to tailor your policy to work best in rural areas?; what effect has your policy had on rural areas and how can it be further adapted?

This briefing paper also demonstrates the need for further research on the day to day work of remote and rural GPs. In particular, it would be valuable to address the following three questions:

- This paper has focused on some distinctive clinical features of remote and rural practice. More work is needed on this. How much of the day to day work of remote and rural GPs is similar, in nature and breadth to that of GPs elsewhere in Scotland and how much is specific to their geography and context?
- What are the main differences in the roles and responsibilities between GPs working in *accessible rural*, and *remote rural* areas of Scotland [9]?
- As the pharmacotherapy, immunisation, community treatment and care services and other additional services are developed across Scotland, what new models of care are most suitable for accessible rural, and remote rural areas?

This briefing paper did not discuss in detail the evidence for development and deployment of multidisciplinary teams; other work has recently explored this area [25,26]. These changes will have a major impact on the way that many rural services are provided. However, GP provision of services such as pre-hospital care for emergencies, for 24-hour care, in community hospitals and for additional services described above, is very likely to be essential for quality of care for rural patients in the future.

It is striking that in the brief survey of past Scottish initiatives set out above from 2000 to the present day, the same issues and problems are often delineated, but that implementation of lessons and solutions has generally been patchy. The evidence suggests that there is now, at a time of great pressure in the NHS in Scotland, a need to consolidate these and put into place sustainable change which supports education, innovation and excellence in remote and rural healthcare.

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