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## Further Reflective Conversations: Medical Library Usage in the Context of Career Transition

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### ABSTRACT

This article is a literature driven reflection about a radiologist's experience of using health libraries in England's National Health Service, as a consultant after returning from a Clinical Fellowship in New Zealand. It is a collaboration between a Consultant Interventional Radiologist and two Academic Librarians. It attempts to reflect on the lived experience of the radiologist and locate that experience within the wider Library and Information Science (LIS) context. Findings include new suggestions about how librarians can support staff in career transition and apply their experience of the COVID-19 pandemic to forge pragmatic relationships within the health care community.

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### KEYWORDS

Collaboration; induction; information-seeking behaviour; librarian-consultant relationship; library usage; reflection

## Introduction

As transition and change is a constant within a medical and an academic environment, we became interested in further reflection and collaboration on this topic. Our previous article was focused on COVID-19 (1). As we have moved to a post pandemic “new normal,” we became interested in the wider question of transitions from one workplace setting to another. We decided to focus on two professional transitions that the radiologist had experienced. The first transition was his move from New Zealand to the United Kingdom. The second was his transition from Clinical Fellow to Consultant Radiologist in NHS England.

Two of the authors are university friends and second time collaborators (1). Alex Wheeler is an Academic Liaison Librarian working at Manchester Metropolitan University. Dr. Simon Zakeri (henceforth the radiologist) is a Consultant Interventional Radiologist currently working in National Health Service (henceforth NHS) England at the York and Scarborough Teaching Hospitals Trust. They are joined by David Matthews, who is also an Academic Liaison Librarian working at Manchester Metropolitan University.

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## Methodology

We have started with three reflections from the radiologist and our approach is to explore and interrogate each of these observations. As in the previous article, we are explicitly using the radiologist's lived experience as our indicative viewpoint. This approach is grounded in Frechette's approach which prioritizes journaling and the horizon of significance whilst discussing medical professionals and their lived experience (2). As such, the radiologist's observations act as the journal and his key observations become descriptive points that inform our joint reflection within this article.

Because of working with a larger writing team, we plan to embed our reflection more explicitly within the wider literature regarding medical library usage and career transition. Accordingly, we are aiming for a robust literature driven reflection. These observations will then be further explored using the wider literature and discussing avenues for future collaboration between information and medical professionals. We have made the conscious decision to focus on the library and information science specific literature to explore the radiologist's reflection rather than the general literature about career changes or expatriate working. We want our article to highlight gaps in the LIS literature and avenues for further research. We are adopting an NHS England viewpoint and will refer to specific terminology. For example, we will refer to the specific NHS positions of consultant:

senior doctors that have completed full medical training in a specialised area of medicine and are listed on the General Medical Council's specialist register. (3)

We will also refer to systems such as Open Athens (Athens) which is an authentication system used by the NHS to provide its staff with access to the databases, books and resources required for evidence-based medicine.

## The radiologist's observations and our reflection

The numbered observations within this section are based upon the radiologist's professional experience between April 2023 and November 2023. They represent his transition from Clinical Fellow in New Zealand to Consultant Radiologist in the UK's NHS, and his personal knowledge without reference to wider literature.

These observations discuss:

- (1) His transition from Clinical Fellow in New Zealand to Consultant Radiologist in the UK.
- (2) The challenges of transitioning to independent working as a Consultant Radiologist.

- (3) The transition to consultancy within the NHS more generally and the impact that had upon his information seeking behavior.

### **Reflection 1: transitioning from New Zealand fellowship to consultancy specifically**

The radiologist states:

During my fellowship in Auckland, New Zealand, we did not have access to a library (in or out of hospital), or institutional access such as Athens. This was a professional challenge and required research gathering from home where I had access to limited internet sources. My Athens access had expired and many times I was locked out from reading key articles.

#### ***Discussion of reflection 1***

There are key points of significance within the radiologist's reflection. First, it makes a clear point about the nature of medical information. Second, it highlights key challenges of an international transition of staff (at all levels) from one country to another. Both have clear implications for LIS professionals supporting medical professionals within the NHS.

There are some key aspects of evidence-based health care and medical information seeking behavior that must be acknowledged to unpack the wider meaning of the radiologist's reflection. Namely, that medical professionals require evidence-based, cognitive information because this type of knowledge-based data drives their clinical decisions and practice. Such data also needs to be as current as possible (4).

Another core consideration is that the NHS has a very diverse workforce. As of November 2023, 19% of the NHS workforce holds a non-British nationality (5). Therefore, it is important for a library service to consider how to manage a transition from one international medical setting to another. How this goal can be achieved is an open question.

A further key point is that it is impossible to make assumptions about medical practitioners' universal access to resources. Even though the radiologist was a clinical fellow in an advanced economy (New Zealand), their personal experience was characterized by poor access to resources. Certainly, this came as a surprise, but it does pose some questions for LIS professionals. First, any library induction or orientation session cannot assume immediate familiarity with standard online resources (such as those provided to NHS workers through Athens).

Second, it is also important to acknowledge how medical practitioners may find their information. For example, with point-of-care clinical questions involving hospital colleagues as a first approach (6). This pattern of information seeking is due to the ready availability of colleagues and the guarantee of

a quick response. Colleagues from other hospitals or even countries may also be consulted. Other approaches to eliciting information from colleagues are during team meetings or by reading change-of-shift reports. In addition to these methods, medical practitioners also consult textbooks, articles or websites via online search engines as their personal or organizational access allows. Finally, a practitioner may also ask junior colleagues, medical students or residents to conduct a search on their behalf (6). Given this pattern of information seeking, it is quite possible that some medical professionals new to studying or working at a UK Higher Education Institute may have not encountered key subscribed resources such as CINAHL, Medline, Cochrane Library, etc. due to a previous reliance upon advice from medical colleagues as well as their own hospital's guidance and open access medical websites and guidelines.

Clearly, the radiologist's reflection has a greater significance for librarians helping medical professionals who have moved from one country to another. Library skills training workshops to provide guidance for medical professionals in how to navigate and exploit suitable information sources should help improve their ability to locate relevant sources as well as develop an understanding of attendant considerations such as plagiarism. The provision of an orientation program at the start of a course would increase medical students' awareness of the different resources that they can exploit, and this approach should be tailored for new members of staff working in a hospital context (4). Moreover, the radiologist's reflection has underscored the need for ongoing information literacy support for new members of staff. However, it is key that this support is pragmatic and acknowledges that changing roles (particularly through promotion) brings further challenges.

## **Reflection 2: having to work independently and without library support was frustrating**

The radiologist states:

As soon as I started my UK-based consultancy in York & Scarborough NHS teaching hospitals, I joined the library and had Athens' access restored. The work schedule and commute has made finding time for dedicated visits to the library almost non-existent. However, knowing I have library support for drop-in sessions, assistance with finding core articles and using Athens' access is key to my professional practice. Consultants generally do less group-based study, and often work independently in their own offices. This means less collaboration, and more reliance on trainees to complete projects. While I have many ideas, applying these is hindered by the clinical work burden. It shows that motivation is a key aspect in ensuring wider LIS use. Since changing my work location and role, I have increased my awareness of library support for finding key articles and using databases accessed by routes such as Athens. I have started using this awareness to facilitate my research. For example, I am bringing a technique called Shockwave Intravascular Lithotripsy to York, which is being rolled out as a prospective trial,

approved by the hospital research committee. This will be led by myself, and once completed I will write it up, which will involve a literature review. Tools such as EndNote (a bibliographic management software) will come into play, and my administrative sessions will involve some protected time for the project. As such, I must continue to take the research initiative and prove to management the importance of research to change and optimise practice.

## ***Discussion of reflection 2***

This reflection has clear implications about the information seeking behavior of consultants and best practice implications for librarians working with consultants. It is interesting that the radiologist explicitly states his awareness of library support for finding key articles and using subscribed database systems via Athens.

A key consideration for librarians is that the substantial number of databases offering medical research and their different interfaces and functionality has led to some medical practitioners' employing a wide variety of idiosyncratic search techniques and practices. These varied approaches have arguably generated an increased need for medical librarians to consult with, and direct, end users to aid their awareness and adoption of established searching techniques to promote effective research (7).

Furthermore, it is arguable that the information-seeking behavior of medical professionals has not kept pace with the substantial growth of available health information in digital format, and its instant access. Such an increase in the number of sources being interrogated could mean that some medical professionals are finding it difficult to discern what information is relevant and what is not required (4). Quite apart from the fact that medical professionals' information-seeking behaviors may not have kept pace with the rate of digital publishing, is the fact that many medical practitioners may be first-time online learners as well, which is an added consideration in supporting such users effectively (8). Given the workload time pressures upon medical practitioners, many may not be able to visit physical libraries. It is therefore key to advertise digital library services and resources effectively to online users. Effective outreach may help medical professionals feel less disconnected from the physical environment (or campus) (9).

Health Education England clearly considers a key intervention for their library staff is:

to improve the information literacy skills and research confidence of the healthcare workforce. (10)

Such a clear role for librarians within this context is also reflected by wider research. For example, Rupp-Serrano and Robbins's research on science staff in 20 American universities found that being able to access current scientific

journals via their libraries was seen as being a key research requirement (11). Librarians must not lose sight of their key role in supporting literature searching because it can have clear implications for the evidence-based practice of frontline medical practitioners.

In their review of the literature on how health libraries can influence clinical decision making, Sadeghi, Nowkarizi and Tajafari acknowledged the potential cost-benefit of medical practitioners using their health libraries and librarians (12). Not only can librarians save practitioners time with their research, but evidence-informed decisions based on reliable, current information can also potentially reduce the length of a patient's hospitalization whilst informing factors such as additional testing and referrals. Such potential health care economics benefits are an interesting consideration. It is noticeable that research conducted by Carroll, et al. with undergraduate health sciences students, suggested that information literacy training can help introduce medical entrepreneurship and health care economics concepts (13).

Arguably, health librarians' understanding of the specific needs of medical practitioners sharpened during the COVID-19 pandemic as the number of urgent information requests grew and remote services were increasingly employed due to the closure of physical facilities (14). Further to this, and as Geda explicitly states:

Medical libraries must be embedded in an educational capacity in health care institutions. (7)

This inherent responsibility dovetails with the radiologist's reflection by highlighting the need for services to innovate and, perhaps, to market themselves within the context of continuing professional development for senior staff.

We should certainly acknowledge the impact of COVID-19 on the enhanced support and performance provided by medical libraries. As Amraei, et al. state:

Hospital libraries provide evidence-based information services for physicians, nurses, and health care personnel who are always at the forefront of the fight against disease, and in the COVID-19 pandemic, their work became even more important. (15)

If LIS staff can be mindful of the working changes that new consultants undergo, then library support can be tailored to support their transition. Additionally, they must be mindful of the huge upheaval that the pandemic has had on all areas of medical information seeking.

It is notable that the radiologist explicitly mentions that their work schedule and commute reduced their ability to engage with online resources. This scarceness of time is reflected in the literature on the research activities of medical professionals (4). The significance of this literature supported observation is twofold. First, for Library professionals to build strong collaborative



relationships with new consultants (or any new member of staff), they must be aware of the changes in working patterns that they are experiencing.

Secondly, libraries need to be attuned to changing needs from medical practitioners and, if feasible, provide staff flexibility to ensure effective support to consultants and other professionals. For example, health libraries such as The Cushing/Whitney Medical Library (CWML) at Yale University have increased service outreach to medical colleagues in response to growing demand for complex search assistance, help with systematic reviews and research impact measurement services (16). This is particularly relevant because of the increasing scope for remote working, which is now often a part of consultant contracts. Libraries can feed into this by providing readily accessible remote resources. In effect, outreach must include specifically reaching out to remote workers.

Interestingly, Chinn, Pribanova and Quirk also evidenced an increased interest in research among NHS staff in South-East Scotland following the Covid pandemic (17). Respondents expressed a clear desire to promote evidence-based practice and to support research but also acknowledged barriers such as lack of time due to workload, the need to reduce patient waiting times, as well as a lack of research skills (17).

From the literature, there is a willingness on the part of librarians to support evidence-based health care and a desire for medical practitioners to base their practice upon up-to-date credible sources (at all levels). However, a key theme that comes through the radiologist's reflection is his discussion of changing working practices. The final section (reflection 3) will propose how librarians can approach working with medical professionals to ease these wider transitions.

### **Reflection 3: transition to consultancy more generally**

The radiologist states:

As alluded to, consultants practise almost like lone wolves, often in their own office space and without the collaborative ethos that trainees are encouraged to have. We basically need to adopt strong research initiative and access library resources remotely, and in between clinical sessions. Often admin sessions get taken over when we are covering within a resource constrained NHS; for example, a colleague off sick will remove all my admin sessions for the week and prevent access to dedicated time for research and learning resources.

### **Discussion of reflection 3**

It has been illuminating to reflect on the radiologist's transition to consultant radiologist more generally. The clear implication that this reflection has for library professionals is the need to build and develop robust pragmatic

relationships that reflect the reality of a senior doctor's workload and working patterns. Further considering reflection 2, Librarians need to also acknowledge how a role and its inherent research and practice needs changes over time.

This observation from the radiologist also fits into narratives about discernible relationships. The radiologist's "lone wolf" status means that they may feel they need to be self-sufficient within their information seeking behavior. However, LIS professionals must not fall into the trap of making any assumption about the medical professional's literature searching skills. If new members of staff have not had formal information skills instruction, they may not be accessing reliable up to date information from dependable sources. Practitioners' assumptions about their research competency, together with the lack of time available to them, may prevent the librarian-practitioner relationship developing to its full potential. Also, the fact that users no longer must visit a physical library due to the proliferation of available online resources has arguably impeded communications and relationship building with users (18). As such, librarians are facing the challenge of practitioners potentially accessing a myriad of readily available digital information sources of varying quality without sufficient discernment as well as working with stakeholders whose role is changing rapidly.

Drawing upon previous observations about the changes in library staffing and remote working during Covid takes on a new significance at this point. It is clear the librarians can reflect on their experience supporting stakeholders during the COVID-19 pandemic.

The extended provision of virtual educational services during the COVID-19 pandemic indicates the significance of training medical practitioners in library use. Online support included virtual tutorials as well as video and audio clips and suitable infrastructure was required for offering such virtual educational services online. As Chista outlines, librarians were at the forefront of the fight against misinformation during the COVID-19 pandemic (19). There was a critical requirement for librarians to proactively help practitioners to develop their information literacy skills to locate and retrieve authoritative information during this time of crisis (19). In effect, medical librarians need to rediscover the spirit of innovation (as indicated by the adoption of virtual training methods) in their approach to new consultants.

It is positive to note that Health Education England's wider framework encourages librarians to engage with and support staff to improve patient care nationwide. As mentioned earlier, Health Education England expects library staff to proactively support the health workforce in improving their information literacy skills thus bolstering their research confidence (10). The awareness of, and need for, library assistance in the NHS does seem to be growing with a 30% increase in demand for the service from 2014–2021 (10). We must assume that medical practitioners undergoing career progression and development will also benefit from this type of support.

The nature of the relationship between the medical practitioner and NHS librarian may be complex. Health Education England outlines the key importance of the NHS library in supporting research and details that information skills training can be provided to practitioners (10). The document also mentions that informed searches by information specialists can help save practitioners' time. This begs the question, who should be conducting literature reviews? The medic, the librarian, or both, and does this matter if the relationship is established, works and is operationally sustainable? As an interdisciplinary writing team, we argue for clear pragmatism that acknowledges the pressures that medical staff experience particularly at points of career transition.

Post COVID-19, it is arguable that the librarians' traditional, relatively passive provision of information literacy training, teaching database skills and assisting with citation formatting is not sufficient for the increasingly urgent information needs, and workload time pressures, of medical practitioners. Instead, librarians may need to be more pro-active and collaborative within the scientific research process, acting as information scientists, helping medical practitioners to harvest reliable data and avoid misinformation (20).

Clearly, librarians must work to understand the pressures that career and location changes have upon a medical professional's ability to engage with a library and information service. As such, the established librarian skillset of relationship management, empathy and support will be essential for any professional looking to support other colleagues during career transitions and development.

## Conclusions

In conclusion, using a medical practitioner's unstructured reflections and then exploring them through the lens of the wider library literature has again proved to be a valuable learning experience. It has been particularly interesting engaging with the radiologist's lived experience at a challenging point of their career. It would be of further interest to expand this research beyond a single practitioner and engage with a larger cohort of medical professionals to identify trends and challenges and see how this differed to the experiences of the radiologist in our article.

It has been illuminating exploring how medical libraries have risen to the challenges of COVID-19 and a post-COVID-19 world. However, ongoing research is needed into how information professionals engender and sustain dynamic, proactive relationships with medical practitioners. From our literature searching, we found a relative dearth of research on medical staff working with insufficient library support. This may be because this situation does not arise very often, but it would also be interesting to undertake further research into this area. Another area for

potential research is exploration of best practice for senior librarians engaging with senior consultants. Certainly, there needs to be more research into librarians' supporting early-stage consultants and investigating how this support changes over time for both the librarian and the new consultant. Additionally, there is the potential for further research into supporting members of medical staff undergoing career development and transition.

Finally, we recommend that librarians working in a hospital setting continue to look for opportunities to engage with new members of staff, whatever their level. Further collaboration between professionals can only be a positive development in an information driven environment such as health care, strengthening evidence-based practice that becomes more economically sustainable whilst improving clinical outcomes for health care users.

### Disclosure statement

No potential conflict of interest was reported by the author(s).

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