Chapter 13 Careers Outside of Clinical Medicine



John G. Brock-Utne and William W. Feaster

13.1 Introduction

You may be surprised to hear that you are not alone in considering a job change. In general, the average worker will change jobs more than 9.9 times before the age of 35. Unfortunately, for the physician, there are really no choices for job change; you either remain in clinical practice or exit altogether.

This chapter is meant to help you sift through the following two questions:

- 1. What are some of the common issues and reasons for contemplating leaving clinical medicine?
- 2. What are some of your options as you set a new trajectory in your life?

13.2 Preamble

If clinical medicine is making your life miserable and mainly for reasons that are out of your control, then don't hesitate, begin looking for alternatives. Remember that the longer you wait to make a transition out of clinical medicine, the harder it can be. It is important you don't waste the best years of your life being miserable.

Did you love the intellectual challenge of medical school only to find third- and fourth-year rotations a long day of scut work without the same degree of challenge, followed by a list of "hurry-up and waits"? You may have found that during

J. G. Brock-Utne (⊠)

Department of Anesthesiology, Peri-operative and Pain Medicine, Stanford University Medical Center, Stanford, CA, USA

e-mail: brockutn@stanford.edu

W. W. Feaster

Chief Health Information Officer, Children's Hospital of Orange County, Orange, CA, USA

residency your energy was at an all-time low when everybody else seemed to be enjoying themselves round the clock? With all of the constraints on time, were you failing at other important aspects of life outside of work? You didn't go into medicine for the money, but you now see that a large percentage of the sales reps that you work with are 10 years younger than you and many of them are making more than you do. You discover their expense account seems unlimited as they whisk you away to their private golf course and wooing you for your future business. Are you jealous of their freedom? Do you long for the freedom of free time to do what you want with your life? Do you know that your knowledge of medicine is a rare and very marketable asset to any company in the medical arena and beyond, and would you prefer to find an avenue in which you can use it as such? Do you know your work ethic to be superior to anyone outside of medicine but, perhaps, below par within it? Is it the science of your specialty that interests you more than using it to treat patients? In essence, do you find the day-to-day grind in the practice of clinical medicine to be not what you want to continue to do for the rest of your life?

OR,

Do you love medicine, look forward daily to medical/surgical cases and volume? Do you enjoy the status of performing medicine and having patients depend upon your skill as a physician? Do you look forward to clinic so that you can explore diagnostic dilemmas and hone your clinical acumen? Life would feel incomplete if you were not able to deal with people in their time of medical need. You see no concern about performing clinical medicine until you retire.

These are two more dichotomous versions of looking at a physician's role in clinical medicine, and, yet, most of us probably have feelings that match a certain percentage of both. The true soul searching is whether one of the above far exceeds the other and to what degree.

13.3 What Are Some of the Common Reasons People Consider a Job Outside of Clinical Work?

• You are frustrated with current workings of medicine in the United States. You came in to treat patients, but you now see it is more a business. As Rosenthal [1] states, hospitals are being run purely for profit. Because of this, burnout by physicians is common [2]. Burnouts are primarily victims of a healthcare bureaucracy that takes advantages of clinicians' dedication to patient care often at the expense of their own well-being [3–5]. Physicians' burnout is therefore largely a result of the policies of the institutions [3]. It is not as hospital administration will have you to believe that you do not have stress management skills or you have failed to maintain a proper work–life balance [3]. Physicians are placed in situations where they have mandates to increase their clinical and clerical responsibilities but have little control over the environment in which those responsibilities must be fulfilled [3].

- Malpractice insurance can take over a third of a physician's income. In a recent poll conducted by the state of Georgia, 7% of all physicians responding to the survey indicated they plan to leave clinical practice as a result of the malpractice insurance crisis in their state. An additional 4% of respondents indicated plans to retire. The rates were highest among OB/GYNs (13% plan to leave clinical practice and 12% plan to retire) and general surgeons (13% plan to leave clinical practice and 7% plan to retire).
- You meet up with an old friend who now has become a plumber and runs his own business. He does not have your medical school debt. Talking to him about finances, you realize that you may never catch him in real income if you carry on with medicine. According to the *New York Times*, the average physician's net income declined 7% from 1995 to 2003, after adjusting for inflation, while incomes of lawyers and other professionals rose by 7% during the same period.
- You may have been "pushed into" medicine by a parent or family of physicians. In addition, you achieved very good grades in school and everyone said that you would be a fool not to use this to become a doctor. Now, you realize this wasn't your true passion in life, and only that of your family members.
- Your significant other/family pressures you to leave medicine. They feel as though they never see you because of your long work hours, and even when you are available, you have no energy to focus on them. You continue to be unable to make time for key issues related to your wife and children. Simply, they feel they are suffering along with you. You are not alone in this problem. In a John Hopkins study on 1113 postgraduates followed over 30 years, the researchers found that the divorce rates climbed to well over 50% for some specialties especially surgery.
- You may have had a "near miss" in your residency that led you and/or your instructors to reevaluate your suitability for the specialty. Many residents when faced with this dilemma agree with the assessment of their elders but find it hard to accept defeat. The few who do not heed the advice to change into something else, decide to finish the residency either by taking an extra year or two or move to another less competitive program. This circumstance is common, and yet no studies have been done to evaluate how these residents have done in the long term. It may be likely that the resident considers this to be his/her only option and perhaps never considered other alternatives available via a nonclinical route. JGBU has unfortunately seen examples of a resident who persevered in a surgical specialty failed and had to retire to family practice. He could not see any other option but medicine and was miserable for the rest of his life.
- You observe with dismay that the public respect for the physician has fallen dramatically. The popular presses make doctoring look simplistic. Often, patients have unrealistic views of their medical/surgical problem and refuse to see that the disease process or processes will interfere with a continued long and productive life. You struggle with these patients and other similar patient dilemmas.
- Lastly, there may be a physical/mental reason that you decide that medicine is no longer for you.

Having highlighted some of the causes that may lead physicians to consider a career change, you should now look within yourself. There may be several of the above points that are pertinent to you. Then you must ask yourself: Can you change any of these personally, or are they out of your control? Can you find others to discuss your challenges with? Can you find people that have managed to be either unsuccessful or successful with either choice, and do you have the characteristics that you think will make you a success in the nonclinical vs. clinical arena? Ultimately, it is a very personal decision.

Do remember that it is not a good idea to run from a bad experience to an unknown one unless, of course, you are forced to? If you can change most, if not all, of your concerns, then you will most likely choose to stay within clinical medicine. Remember also that although the grass may look greener, often it is not true and a true Utopia does not exist. You should also be introspective about the potential that your need to leave medicine might contain an internal need unmet and that a job change may not resolve the issue.

No matter what the reason, you should know that most physicians that look into a nonclinical career do just that; look. In the end, you will be fearful of jumping off track. Let's face it, you went into medicine because it was something you were capable and interested in doing, it appeared to be a secure form of work, and the intellectual challenge, perhaps, as difficult as any. Clearly, there is no job like it. But today, security is not a foregone conclusion; it is likely with even minor lapses in decision making, you could find yourself in the least secure position of all, and at the most disastrous time of life. If you believe this to be a likely course for your future, you ought to consider strongly other alternatives before this occurs.

If the balance for you is to move away from clinical medicine, there are choices, in fact, very good ones. These may allow you to be more creative, garner more personal freedom, travel, be a leader, work with larger groups of people, and, ultimately, you can hopefully find your fit outside of clinical medicine with your unique background.

Remember, you have achieved something great by just having the opportunity to practice medicine; if, in the end, it is not for you, that does not mean you are a failure. The same work ethic and mental prowess that allowed you to get into medical school and complete residency will carry you toward success in many areas of interest that you decide to pursue.

13.4 How Do You Find Something Else to Do Outside of Clinical Medicine?

Choices exist for the following either full- or part time:

- Work at a hospital as a medical administrator/health care.
- Remain in the medical field and use your knowledge in research.
- Find a home in business within the industry of medicine.
 - Advisor to medical devices and supply company
 - Pharmaceutical industry

- Medical education
- Corporate physician jobs and insurance medicine.
- Healthcare consultant
- Medical journalism, workshops, public speaking
- Medical writer/editor of both peer reviews and open access journals
- Advisor to venture capital funds
- Expert witness/medical malpractice expert
- Advisor to medical startups
- Become an inventor
- Forensic medical examiner/researcher
- Online physician jobs like in telemedicine
- Medical translation if you have the skillset of another language
- Medical IT to assist healthcare systems
- Attorney/paralegal or a consultant or advisors for lawyers

Move outside of medical field altogether Get creative, invent something, perhaps, related to the medical industry

13.5 Part Timing It

You've spent a long time training to be a physician and you don't want to give it up completely, but you would like to use your knowledge and skills in some other way in addition to your practice. Physicians have a treasure trove of work options in addition to their practice.

There is one caveat. Before pursuing other options, you will need some practice time under your belt to get credibility as a physician (especially with other physicians). How long will that take? Other than taking on additional roles in your practice, or participating on hospital committees, you need to prove yourself as a clinician for a minimum of 3–5 years prior to pursuing a significant role outside of your practice.

Some specialties make getting involved in other jobs quite easy. They are typically specialties without continuing patient responsibilities past a defined work commitment of a shift covering the emergency room (emergency medicine) or a scheduled day in the operating room (anesthesia). Primary care specialties are the opposite extreme. You are responsible for a population of people who have the nasty habit of needing you whenever they are sick and, often, at a time very inconvenient for the other activities you are pursuing.

Participating in other activities outside of your practice is hard work. Chances are you will work more hours than full-time practice, as, at least early on, most of these jobs are additive to your other responsibilities. You'll need to get more education, something that isn't easy to do in a busy practice. You'll need to be patient through all the years of proving yourself clinically, and positioning yourself for these other roles. Along the way, you may make less money rather than more, if you substitute volunteer or lesser-paid activities for patient care.

13.6 Medical Administrator (See Chapter 12)

Getting involved with your clinic/hospital committees and responsibilities within your practice is the first step toward work in medical administration. The hospital/clinic administration gets to know you. For doctors in practices with continuing patient care responsibilities, this is sometimes very difficult to achieve. You may be able to convince members of your practice to cover your clinical work while you spend time doing administrative activities within the practice. However, members of your group may be less willing to cover for you to attend hospital/clinic meetings that they perceived have little direct benefit to them. Unfortunately, because of this many hospital/clinics have no physician input and this can lead to protocols, etc., that waste physician's time and may not be in the best interest of the patient (see Sect. 12.4).

Going up through the ranks of the medical staff is the best way to get involved in hospital administration. You start as mentioned by participating in medical staff committees, eventually serving as chair. These positions can elevate you eventually to Medical Staff President. In this role, you are seen as a leader, directly interacting with the senior management of a hospital. Here you will get good, first-hand knowledge of how things work in this very complex environment. This role prepares you for additional ones where your leadership abilities can continue to be utilized, either in other medical staff or hospital positions.

On-the-job training is essential, but additional education is a must if you want to advance in hospital administration. A master's-level degree in business or healthcare administration is a logical choice if you have the time or energy to complete one. There are numerous "executive" MBA programs available through colleges and universities in all major cities. There are also numerous educational opportunities that incorporate generous amounts of home study, keeping time away from home to a minimum. Some programs allow you to get credit toward a degree for individual classes taken in a conference-like setting or online. Most of these more time-friendly courses are offered in collaboration with the American Association of Physician Leadership (AAPL). Go online at www.physicianleaders.org to review these options. AAPL also offers a certification track for physician executives similar to a board certification in a specialty; however, this hasn't been well recognized to date.

13.7 Industry

If you want to remain in the medical field, perhaps even in your defined specialty, there is always an industry that supports your specialty of interest. Sometimes that industry can be many billions of dollars in size. Options for medical devices, capital equipment, and pharmacology exist and should be explored based upon your interest.

It is often best to show how you can perform in communicating with your colleagues on their level – physician to physician. Hiring personnel will be wary of someone that thinks they are the cat's meow. Show that you are willing and able to

13.7 Industry 109

suffer in the job role as anyone else. And above all, make sure you are the best in the company at the skill of interest.

A technical sales representative position can get you necessary face time with many physicians across the country and show your level of intellect to many parties within the company. Soon, you will become the "go to" person for training and advice. Once you have established your value to the company, look toward improving the company and realize that you may be the only person in the company that really knows what you're talking about. Keep your focus on future perspectives for the company; feel confident in your knowledge and assert yourself where you feel confident in your decisions. The rest of the company has far too much focus on the next quarter. But when they look back, they will recognize that you either warned them of issues or provided them with answers many months or years ahead of the rest of the workforce. This can be great fun as you sell the vision of what the company can achieve for the future, and you can become rather personally invested in the solutions that you are set out to create.

Start by researching areas that are ill defined as to how they will influence the future of that specialty. This is where your knowledge base will be most useful, particularly if the subject matter is difficult. Find ways to communicate the value that you would bring to this company. Ultimately, there are likely examples of leaders in the company that are the same as you, although few and far between. Seek them out as mentors both before and after the job acquisition. By the way, these same companies often spend terrific amounts of money for MDs as outside consultants. You can, with your expertise, save them both money and provide value.

Working in the medical industry can be very rewarding, both professionally and financially. With you on their team, the company will tend to use you to offer a higher degree of product knowledge and legitimacy. Surgical specialties with their dependence on medical devices and capital equipment offer a wealth of opportunities for your knowledge base to shine through. Medical devices offer a disposable income for the company and can garner large wealth quickly but you will likely be used to develop relationships; capital sales can give you access to a higher level of sales interaction as the product usually involves some equipment offered to improve surgical outcome. You will find amazing the number of leaders you will immediately be exposed to. Orthopedics is a prime example as there are many companies that compete to sell orthopedic products. But other specialties offer similar opportunities especially as new, more inventive, minimally invasive procedures are developed. However, using equipment and devices can be technically challenging for a busy physician to integrate into his/her practice, hence the advantage of a person with a medical degree to help the transition.

There are quite a few physicians who want to work in the medical industry, but very few who can show a clear commitment to it. You will need to differentiate yourself from the countless others who have a similar goal. The three "As" of success in practice (available, affable, and able) also apply to the medical industry. If you are asked by a sales representative of a company to give a presentation on their product, and you're interested in doing work for that company, say yes (available). In your dealings with that sales representative, be friendly (affable) and when you go to give the talk, do a bang-up job on your presentation (able). More invitations

will follow, perhaps an invitation to join the medical advisory board of the company, etc. This builds your medical industry resume, expands your contacts, and gets your foot in the door for a larger role. Soon, you will find other companies seeking your expertise. If you're working with a start-up company, don't expect a lot of money for these types of activities – they just don't have it. Lord knows we have existed on meager earnings before it might be time to take your investment in the form of stock options and profit sharing. Still, remember that you have medical school debt that others in the company do not have, and you offer something very few, if any, can offer in terms of value. When the time is right, stick up for yourself and demand compensation. They will see that you have unique qualities and will not be willing to lose you. A recent study was shown for MDs outside of clinical practice in which their hourly pay rate neared \$1000/hour.

13.8 Research

If you like the science of medicine more than clinical practice, you might find a perfect home within research. You are still an MD and your knowledge base can be exceedingly useful in research and your long-term productivity for the science, perhaps, many times greater than if you remained in clinical practice.

As data science and artificial intelligence becomes more prominent in clinical medicine, the close working relationship between the data scientist and the clinician is essential to creating tools to augment patient care.

However, the importance of data validation, its description as part of the method section, and the cleaning and analysis script as a supplemental appendix in big data sets should not be underestimated. Doing so will give the readers confidence that the conclusions are valid.

It is essential to develop a standardized transparent validation process for big clinical data. This process should include statistically appropriate random sampling of the original data. Without such a process, it is impossible to determine the validity of the conclusions for these studies [6].

13.9 Outside of Medicine Altogether

If you know both what you want to do and the location you want to work in, then it can be easy. However, always check your facts. Is this a real job, does it pay, what about housing and schooling, what are the locals like, etc.? A resident, I knew, after leaving residency became a deep sea treasure seeker of the Florida coast and never looked back. However, I know he and his wife did their homework prior to the move and so must you.

If you know what you want to do but are uncertain as to the location, then it can potentially become more difficult. It is imperative that you search the location thoroughly prior to committing yourself. Comparing places is imperative.

If you don't know what to do but the most important thing for you is the region that you want to live in, then this can also turn out to be potentially a big problem. It is imperative that you go there for a visit. Stay in a bed and breakfast for 2–3 weeks. Read the local newspaper to find out who is who in the place and peruse the job section. It is advisable to speak to as many people as you can (in coffee shops, etc.). Survey the real estate market, visit local municipality (looking at house zoning, etc.), schools, supermarkets, and museums. All this will give you a flavor of the place. I know a colleague who, after some years in a specialty, decided he had enough. He went to Hawaii and bought a piece of land. There, he was going to build his dream house. He knew he would need help with the building; so, he very cleverly got a job in the town's hardware store. Not only did he get 15% off on all the materials he bought, but he got to know a lot of plumbers, builders, etc. These became his friends, and soon they were busy helping him building his house at a reduced rate. He is still working in the hardware store 10 years later.

If you don't know what do to and the region you want to settle in is also immaterial, then you have an even bigger problem. There are many publications that may guide you toward a successful nonmedical career (see Suggested Reading at the end of this chapter). You can also get career counseling from specialists in the field, government agencies, or contact a recruiter. Although the latter is really there to "headhunt" you, they should have knowledge about career changes and your aptitude for a special job. At many universities, there are career counseling services that can be useful for you.

13.10 Get Creative, Be an Entrepreneur

There are numerous examples of successful entrepreneurs in medicine and most have advanced degrees, majority being MDs. You have experienced the inner workings of medicine. You know the flaws of performing clinical medicine, and you can dedicate a percentage of your time now to solving them.

The mother of creativity is necessity. Think about your troubles in medicine and what you don't like about it, get creative about inventing solutions. Science tends to integrate technology at a fairly rapid pace, although clinical medicine much more slowly. An exception here is the development of the oximeter.

13.11 Examples Abound

A resident in orthopedics left in his PGY 4 years. After working for several companies in the industry, he started a company on the side for 72 dollars that uses Nintendo Wii's to do home shoulder physical therapy. This creative idea was valued by a venture capital firm at over 4 million within the year.

Another such MD began developing surgeon websites. He has more than 480 websites at the moment and is expanding into other segments that use the Internet

to educate and instruct patients how to make smart decisions about their healthcare choices.

Another MD began a think tank that delivers intellectual property as licensed product to implant companies.

And still another MD began consulting with hospitals to deliver technology advancements and marketing advantages across the entire spectrum of inhospital care.

The possibilities are endless.

13.12 Conclusion

You and your family will have to make a decision to pursue a nonmedical career or not. Nobody will or should do it for you. The best advice, as to finding out what is the best thing for you, is to ask yourself: "Will this make me happy?" This can be a difficult question to answer. However, the following question may be easier: "What is it that makes you happy?" If it is making wooden tables, being out in the nature, scuba diving for sunken treasures, or working in industry instead of clinical medicine, then, by all means, do your best to make your dream a reality.

Acknowledgment The authors acknowledge the help of Dr. Blaine Warkentine for his valuable contribution to this chapter seen in the first edition of *Life After Residency*.

References Related to Burnout and Data

- Rosenthal E. An American sickness. How healthcare became big business and how you can take it back. New York: Penguin; 2018.
- Orlovich DS. Solving resident burnout. An assessment and plan. Horowitz publishing. Rocky Hill NJ: 2020.
- Brock-Utne JG, Jaffe RA. Address Physicians burnout by restoring control of health care to physicians. JAMA Int Med. 2020;180:334.
- 4. ZDogg: MD website https://sdoggmed.com/moral-injury/. Accessed 22 Aug 2019.
- Wan W. Health-care system is causing rampant burnout amount doctors, nurses. The Washington Post October 23. 2019.
- Sanford J, Jaffe RA, Kadry B, Bjerregaard J, Schmiesing C, Brock-Utne JG. The importance of developing standardized transparent validation of large data. Anesth Analg. 2016;123:1636–7.

Suggested Publications That May Guide Towards a Successful Non-medical Career

Aalseth P. Medical coding: what it is and how it works. 2nd ed. Digital Safari Books Online. 2015. Brock-Utne JG. Clinical research—case studies of successes and failures. New York: Springer; 2015.

Cadieux M, Wilson-Scholin HC, Kesselheim JC. Video creation for specialty career exposure in undergraduate medical education. Clin Teach. 2021;18(1):14–8.

Charalambous CP. Career skills for doctors. Cham: Springer; 2015.

Doi Suhail AR, Williams GM, editors. Methods of clinical epidemiology. Berlin: Springer; 2013.

Double DL. Assessing your career options. A workbook for taking charge of change. Chicago: American Medical Association; 1998.

Goestenkors D, Day G. The medical services professional career guidebook: charting a development plan for success. Digital Safari Books Online. 2012.

Graham JM. Reflections on a career in dysmorphology, teratology, and clinical genetics. Am J Med Genet A. 2021;185:2620.

Hager Y. Medical communications: the "Write" career path for you? Cold Spring Harb Perspect Biol. 2019;11(1):a032953.

Hurria A, High KP, Mody L, McFarland HF, Escobedo M, Halter J, Hazzard W, Schmader K, Klepin H, Lee S, Makris UE, Rich MW, Rogers S, Wiggins J, Watman R, Choi J, Lundebjerg N, Zieman S. Aging, the medical subspecialties and career development: where we are, where we are going. J Am Geriatr Soc. 2017;65(4):680–7.

Kashani JH, Allan WD. The physician's job-search Rx. Marketing yourself for the position you want. New York: Wiley; 1998.

Kenwright KM. Career satisfaction in the profession of medical laboratory science. J Allied Health. 2018;47(3):222–7.

Kim KJ, Park JH, Lee YH, Choi K. What is different about medical students interested in non-clinical careers? BMC Med Educ. 2013;04:13–81.

Levin-Epstein M. (Editor) Careers in biomedical engineering. Digital Science Direct. 2019.

Malec BT. Careers in health information technology. Digital EBSCO Academic Comprehensive Collection. 2015.

Mandel J. Career development strategies for the clinical educator. ATS Sch. 2020;1(2):101–9.

Moawad H. Careers beyond clinical medicine. Digital EGSCO Comprehensive Collection. 2013.

Rees E, Guckian J, Fleming S. Fostering excellence in medical education career pathways. Educ Prim Care. 2021;32(2):66–9.

Scott M. Planning for a successful career transition. The physician's guide to managing career change. Chicago: American Medical Association; 1999.

Sinetar M. Do what you love. The money will follow: discovering your right livelihood. American Medical Association. 1998.

Smith D, Wood D. Research in clinical practice. London: Springer; 2013.

Song KH, Nguyen DR, Dietrich EJ, Powers JE, Barrett JP. Career satisfaction of military medical officers. Mil Med. 2020;185(3–4):e438–77.

Suravajhala PN. Your passport to a career in bioinformatics. New Delhi: Springer; 2013.

Tieger PD, Barron-Tieger B. Do what you are: discovering the perfect career for you through the secrets of personality type. Boston: Little Brown & Co; 1995.

Tso S. Clinical academic career: An alternative viewpoint. Clin Teach. 2017;14(2):141–2.

Wijeratne C. Clinical assessment of the late-career medical practitioner. Australia Psychiatry. 2016;24(2):140–3.

Wijeratne C, Earl J. A guide for medical practitioners transitioning to an encore career or retirement. Med J Aust. 2021;214(1):12–14.el.

Wiley CL, Mason DS. Medical and scientific affairs: another career path for clinical chemists. J Appl Lab Med. 2016;1(2):237–8.