

Horizons for Clinical Pharmacist All in a Day's Work

Fakhr Z Al Ayoubi*

Cardiology Clinical Pharmacist Division of Cardiology & CCU, King Fahad Cardiac Center & College of Medicine, King Saud University Riyadh, Saudi Arabia

***Corresponding author:** Fakhr Z Al Ayoubi, Cardiology Clinical Pharmacist Division of Cardiology & CCU, King Fahad Cardiac Center & College of Medicine, King Saud University Riyadh, Saudi Arabia

ARTICLE INFO

Received: 📅 July 10, 2023

Published: 📅 July 21, 2023

Citation: Fakhr Z Al Ayoubi*. Horizons for Clinical Pharmacist All in a Day's Work. Biomed J Sci & Tech Res 51(4)-2023. BJSTR. MS.ID.008143.

Opinion

This is the first time ever that I write about myself and my career for other people to read. The task can be difficult especially when one tries to describe the feeling of anxiety and the joy of triumph that often goes hand in hand. I will sail through the high points of my career with the caveat that I will not spare the details when they can be of value. In addition to a master's degree in clinical pharmacy I took a residency in poison management and toxicology. At our institution poison center is part of drug information service all under the clinical pharmacy service at the pharmacy department. I served for a number of years as the supervisor of the Drug information and Poison Center. I thought poisoning was a very interesting part of my duties. We routinely conducted community awareness activities on an annual and at times semiannual basis. The theme that we thought was attractive and crowd getter was prevention of poisoning in kids them was created based on national drug information centers data that was collected telling us that poisoning in children is a significant public health concern globally, and it can lead to severe consequences if not prevented or promptly treated. Acute chemical poisoning incidents among children in Saudi Arabia from 2019 to 2021. A total of 3009 children were recorded as being chemically intoxicated [1].

Also, more data were analyzed to guide us at what time we need to conduct our awareness, the highest percentage of cases occurred during July followed by March for the cumulative total cases by month for all years. More than half of the cases involved males (55%), and children aged less than 5 years (56.6%). About three-fourths of the cases occurred accidentally and through ingestion. The most com-

mon poisonous agents were detergents (36.0%), affected children <5 years of age, and occurred via ingestion. Only 1.1% of cases received a poisoning specific antidote, and the same percentage died because of poisoning. Gender, age, nationality, the route and the circumstances of the exposure were significantly associated with the type of poisoning ($P<.001$) [2].

It is an enjoyable and rewarding experience because of the children. Once you have the children the family comes along at times with their grannies. We seize that moment to educate the grownups about poisoning and accidental drug over dosage along with other basic first aid for a poisoning victim. We provide poisoning hotlines for other hospitals in the country. The program also covers sting and bites management. For some reason establishing a drug information service is perceived by smaller hospitals as a luxury that they can do without. My objective is to dispel misconceptions and launch a successful service that caters not only to local patients but also to those in Gulf countries. One of things that I am proud of, is being able to change the misconception and to succeed in initiating the service not only at home but in some Gulf countries too. I have delegated all my previous responsibilities to my ex-students and current colleagues, and I have since focused on becoming a dedicated clinical pharmacist.

By doing so, I aim to achieve my goal of improving healthcare services for those in need. With diabetes mellitus so rampant in our country; it is estimated that 40% of the population over the age of 40 years are diabetics I found myself compelled to know more about it in order to help and offer advice. I got involved to the point that I am almost always invited to speak at any national meeting that has

to do with diabetes mellitus and patients' education. Riyadh is a cosmopolitan city in fact it is referred as Greater Riyadh it has expanded horizontally over the last three decades with that came the cars and traffic congestions. It is very difficult to move from point A to point B in a reasonable time. If one has an appointment one has to give the travel time due consideration. In my master's degree Thesis, I looked at this problem as someone who is affected by it; it just happened that I live 25 miles from my University Campus where I work. I thought of a way to empower the local pharmacist to help the patients as much as possible. The idea came in to encourage community pharmacy type practice. As of now, the idea of promoting a community pharmacy type of practice has been introduced, with the hope of it becoming the new standard. The goal is to encourage pharmacists to play a more significant role in their communities and to provide better access to healthcare services for the public. The hope is that this concept will gain momentum and become the norm in the near future.

There is no doubt that Clinical Pharmacy, defined as that area of the specialty concerned with the science and practice of rational medication use has revolutionized the profession in ways hitherto unimaginable. It helped put the Pharmacists in the driver's seat in their area of expertise. The medical community was not initially very receptive to the idea of having a pharmacist among their ranks [3]. This was aided in part by the well-meaning conventional pharmacists who believed that pharmacy as the science pharmacology and the art of dispensing drugs that had very little dealing with patients. Against that not so friendly background Clinical Pharmacy started and slowly but surely took hold until it became part and parcel of quality medical care. That clearly shows that persistence and perseverance will eventually pay off in a big way. With the great advances in medical know how and explosion of knowledge the medical community like the rest of us can barely keep up with the latest in their field let alone the discipline of pharmacy and dispensing of drugs. Clinical Pharmacists have the edge over medical practitioners when it comes to drugs their actions, side effects, Safety and their interactions with other drugs and food. This is the secret that I found very few of us pharmacists do not realize. I am thankful to the Saudi Heart Association Pharmacy Group as well as the American College of Clinical Pharmacy for giving me this chance to contribute with their activities and courses to Reflect on Pharmacy Practice. My story with pure clinical work dates to a couple of years ago when the Cardiology service at the University Hospital in King Saud University where I work asked me to be part of the team of the new heart failure clinic, as in Saudi Arabia Heart failure is a prevalent medical condition, with a reported prevalence rate of 2.6% in the general population. The incidence of heart failure is expected to increase as the population ages and the prevalence of risk factors such as hypertension, diabetes, smoking, hyperlipidemia and obesity continue to rise. The Ministry of Health as well as the Saudi Heart Association in Saudi Arabia has taken several measures to address this issue, including involving cardiology clinical pharmacy as well as development of clinical guidelines for the management

of heart failure, the establishment of specialized heart failure clinics, and the provision of appropriate medications and medical devices [4]. In addition, various non-governmental organizations and patient support groups have also been established to provide education and support to those affected by heart failure and their families. These groups work to raise awareness about the condition, promote healthy lifestyle choices, and advocate for better access to healthcare services.

Overall, while heart failure remains a significant health concern in Saudi Arabia, efforts are being made to improve the management and treatment of this condition through a combination of governmental and non-governmental initiatives. I was handpicked and I welcomed the challenge even though I knew very little about heart failure. I started to read and educate myself by persuading a PhD in heart failure to educate myself about this medical condition. Through this degree program, I have gained in-depth knowledge about the pathophysiology, diagnosis, and management of heart failure. My studies have equipped me with the necessary skills to conduct research in this field and to contribute to the development of new treatment strategies and interventions. Additionally, I have been able to leverage this knowledge to educate other healthcare professionals and to raise awareness among the general public about the importance of early detection and management of heart failure.

Overall, my PhD in heart failure has been a valuable experience that has enabled me to deepen my understanding of this condition and to make a meaningful impact in the lives of those affected by it. The first few clinics were really stressful. These patients were usually on a number of drugs some of them would interact and I needed to suggest reducing the dose or eliminating one and suggesting another one. As time went on I gained their confidence and the staff that was initially rather reserved and skeptical was forthcoming in their praise. I felt I was making a difference and really part of the team when they formally asked me to part of their team not only in the clinics but also where it matters the most the Coronary Care Unit (CCU). I thought it was a compliment of the first order. It was not an easy change for me; for the first time I am face to face with critical care with its strange environment of the different monitors and other devices each making a special buzzing sound. That was rather spooky for me but I got over that in a hurry. The support of the team was of great help to me. I observed what the team does and looked for areas where I can help as a pharmacist. I made a point to make my own rounds early in the morning before the team looked at the various drugs and their possible interaction and calculated the dosages for those with renal impairment. Those personal rounds paid their dividends in a big way. I appeared more informed about the patients so when I make a comment the group pays attention. One thing more I did was to update my knowledge on acute coronary syndrome and its management. Drug costs per admission came in line with the literature reports about the impact of clinical pharmacist on drug costs in coronary care units [5,6].

In addition to that there are consultations from the floors and even cardiac surgery about various drug related issues. In an academic institution research and publications weigh heavily on clinician's mind. It was a pleasant surprise to be asked to help in the research activities. To me the secret of success is to love one's work and here is some points that I find were helpful in building trust and gaining confidence with physicians and surgeons alike:

1. These are very busy individuals so make it a point to update the team with new and relevant drug-related issues. As these individuals are often occupied with their respective responsibilities, it is important to proactively keep the team informed about any new and relevant drug-related developments. In my case, I subscribe to Prescriber's Letter, as well as other pharmacy related sites which periodically provides information that may be of interest to cardiologists. Whenever I come across any relevant information, I make it a point to send an email to the team to keep them up to date with the latest developments.
2. Be careful with the language used. It should not be like you are teaching the clinicians but rather "sharing information of interest."
3. Request time to speak in their grand rounds every few weeks to update something or discuss a change in drug related policy. At times give an educational material on the newer therapies
4. Do your homework and make sure that you know the patient before you are told about him/her. That is the value of doing you morning round and getting acquainted with the patients.
5. Do not rely on memory alone, it can fail you. Get into the habit of writing what you need to do for the day.
6. Be a member of the Quality control team, as well as the clinical practice guideline committee of the department you are covering their rounds and patients.
7. It would be beneficial to establish a training site for the next generation to continue their learning process in this field. By providing a dedicated learning environment, we can ensure that upcoming healthcare professionals have access to the latest knowledge, technology and techniques. This will enable them to better serve their patients and advance the field of pharmacy and medicine.

The best compliment that clinical pharmacy could hope for is the one from those who opposed it in the past; those who believed that discipline interferes in patients' care and that it was sailing in uncharted waters. It is astonishing that these folks are our allies now. Their quality care is the one in which clinical pharmacy is a partner [7-9]. The impact of clinical on the quality of medical care is felt by all. These are my reflections about being a clinical pharmacist in this day and age where communications became so fast and efficient. I am sure that it will be read in amazement by someone thousands of miles away who will by the way have a mental picture of this author who deliberately omitted that perhaps this would add to richer imagination.

References

1. Haldane JBS (1949) Disease and Evolution. *La Ricerca Scientifica Supp* (19): 68-76.
2. Detwiller SR (1943) *Vertebrate Photoreceptors*. London: Macmillan & Co.
3. Riley PA (2018) Radiative Heat Loss in relation to Evolutionary Aspects of Melanin Pigmentation in Man. *Adv Biochem Biotechnol* 4: 2018.
4. Riley PA (1997) Epidermal Melanin: sunscreen or waste disposal? *Biologist* 44: 408-411.
5. Morgan E (1985) *The Ascent of Woman*. London: Souvenir Press.
6. Dodd JR (1973) Physiological concentration of elements. In: *Encyclopaedia Britannica* 6: 712-716.
7. Horcicko J, Borovansky J, Duchon J, Prochazkova B (1973) Distribution of zinc and copper in pigmented tissues. *Hoppe-Seiler Zeitschrift der Phys Chem* 354: 203-204.
8. Riley PA (2013) A proposed selective mechanism based on metal chelation in industrial melanic moths. *Biol J Linn Soc* 109: 298-301.
9. Green R, Charlton R, Seftel H, Bothwell T, Mayet F, et al. (1968) Body iron excretion in man: A collaborative study. *Amer J Med* 45: 336-353.
10. Edge R, Riley PA, Truscott TG (2022) Does iron chelation by eumelanin contribute to the ethnic link with maternal mortality? *Eur J Obst & Gynae & Rep Biol* 278: 107-108.
11. Riley PA, Truscott TG (2020) Does iron chelation by melanin explain the ethnic link with Covid-19 fatality? *J Biomed Sci & Tec Res* 31(5): 24527-24528.
12. Riley PA (1992) *Materia Melanica: Further dark thoughts*. *Pig Cell Res* 5: 101-106.

ISSN: 2574-1241

DOI: 10.26717/BJSTR.2023.51.008143

Fakhr Z Al Ayoubi. Biomed J Sci & Tech Res



This work is licensed under Creative Commons Attribution 4.0 License

Submission Link: <https://biomedres.us/submit-manuscript.php>



Assets of Publishing with us

- Global archiving of articles
- Immediate, unrestricted online access
- Rigorous Peer Review Process
- Authors Retain Copyrights
- Unique DOI for all articles

<https://biomedres.us/>