

Original Article

Giving Correct names to Disciplines in Pathology in the 21st Century: A Review of Working Environments among Pathologists across Nigeria

Jombo GTA¹, Odimayo MS¹, Adaja TM², Onoja MA³, Ojo BA³.

¹Department of Microbial Pathology and ²Department of Chemical Pathology, Faculty of Basic Clinical Sciences, University of Medical Sciences, Ondo-City, Nigeria.

²Department of Haematology and Blood Transfusion and

³Department of Anatomic Pathology, College of Health Sciences, Benue State University, Makurdi, Nigeria.

Correspondence

Prof. Odimayo MS

Email: simideledimayo@gmail.com

Tel: +2348033744661

Article Metrics

Date submitted: 14/04/2020

Date Accepted: 31/05/2020

Date Published: June, 2020



ABSTRACT

A name gives one identity, inspiration, strength, vision and an ability to see far into the future from the beginning. Pathology disciplines therefore need correct and proper names that will carry along it all those attributes to enable them explore all her potentials unhindered in the 21st century practice of Medicine in the country. This study reviewed the functions of Medical Microbiologists and Haematologists in the midst of incessant inter-professional rivalry involving medical laboratory scientist in the country's teaching hospitals. Data was collected based on information from electronic, online and print media, and social media platforms. Questionnaires were administered to assess the knowledge of students of Adeyemi College of Education Ondo-City on the difference between Consultant Medical Microbiologists and Academic Microbiologists. We found out that in over 85% of the crises in the medical laboratories in the country are from either Medical Microbiology and or Haematology laboratories; disciplines whose names have little to do with pathology, and that Anatomic Pathology and Chemical Pathology disciplines are usually only in solidarity with the two. Also other health personnel including scientists do not feel fully convinced that Consultants in the former two disciplines (Medical Microbiology and Haematology) are truly Pathologists. It was also found that 90% of members of the general public cannot differentiate between a Pathologist who specializes in Microbiology from an individual who graduated with BSc or MSc in Microbiology and so could hardly understand why such could not also practice as Consultant Microbiologist or Lecture in Clinical Pathology departments. At the University of Medical Sciences teaching Hospital Complex (UNIMED THC) where both the discipline and the Department are named Microbial Pathology, the tension has substantially been put under check. The two subspecialties should be properly named as: Microbial Pathology and Haematologic Pathology instead of Medical Microbiology and Parasitology, and Haematology respectively along with their respective Departments.

Keywords: Disciplines, Haematologic, Microbial, Nomenclature, Pathology

INTRODUCTION

The practice of Pathology across the country has had its own fair share of challenges from among the public, other health personnel as well as among Pathologists themselves. The challenge from the public is largely the inability of the public to understand the actual job prescription and relevance of Pathologists in the chain of qualitative healthcare delivery. This can largely be addressed through proper and coordinated public enlightenment and through mass literacy.^{1,3}

The major challenge being faced by Pathologists across the country is that posed by the laboratory scientists mostly in the tertiary health centres. At the University of Calabar teaching hospital (UCTH) Calabar, the hospital management could not admit resident doctors into both Medical Microbiology and Parasitology, and Haematology Departments for over a decade from inception as the laboratory scientists held sway affairs. And of recent they forcefully chased residents doctors and consultants out of the laboratories.⁵ At the Obafemi Awolowo University teaching hospital (OAUTH) complex Ile-Ife, the situation is no different as scientists in haematology at a point stopped both Pathologists and residents from entering the laboratory. Also at the Jos University Teaching hospital (JUTH) Jos, the scientists took entire management of the hospital to court and prayed the court to hand over the laboratories to them.⁶

At the Federal Medical Centre (FMC), Owo, the scientists similarly went to court and prayed that they be declared owners of the laboratories or their own Departments be carved out for them out of the present structures in our health centres. Similar tensions abound and struggle for dominance is the same order of the day at FMC Makurdi, Keffi, Jalingo and Yola. The situation is no different at the University College Hospital (UCH) Ibadan and the Lagos University Teaching hospital and Lagos State University Teaching Hospitals in Lagos where Pathologists have carved out research laboratories for training of resident doctors who have limited access to service laboratories where scientists call the shots. These hostilities and

skirmishes are not different at the University of Portharcourt teaching hospital (UPTH) Portharcourt, and the National hospital along with University of Abuja Teaching hospital all in Abuja where Pathologists are either in direct or indirect confrontation with the scientists in the course of daily work.⁷⁻¹⁰

At the Ahmadu Bello University Teaching hospital (ABUTH) Zaria, Usmanu Danfodiyo University Teaching hospital (UDUTH) Sokoto, University of Maiduguri Teaching hospital (UMTH) Maiduguri, University of Nigeria Teaching Hospital (UNTH) Enugu, and University of Ilorin teaching hospital (UIITH) Ilorin there is relative calm. This is because the scientists have largely conquered these territories and Pathologists along with residents have accepted their fate not to seriously engage them of cause with severe negative consequences on quality of service delivery. In the midst of all these skirmishes and frictions whether low or high keyed all have the potential to impact negatively on the quality of laboratory service in each hospital.¹¹⁻¹³

A name gives one identity, inspiration, courage, strength, vision and an ability to see far into the future end from the beginning. Whether the names given to the Pathology sub-specialties as it operates in our health centres has any role to play in all these needs to be ascertained. This study was therefore set up to assess whether or not there are Pathology sub-disciplines that are prone to friction with scientists across the country, the likely or otherwise, association of their names with this trend; and hence proffer solutions to bring the crises to a halt.

MATERIALS AND METHODS

The study involved search for information on conflicts and frictions among Pathologists, Resident doctors and hospital managements with laboratory scientists across the country. Relevant information was obtained from electronic media such as Nigeria Television Authority (NTA), Channels Television, TVC News, Silverbird, Federal Radio Corporation of Nigeria (FRCN), and Africa Independent Television and Ray Power FM; Print Media

such as Thisday, Punch, Sun, Nation, Daily Post, Daily Independent; online media such as Sahara Reporters and Premium Times; social media such as Facebook, Instagram, Youtube, Whatsapp, Twitter, Telegram using keywords like pathology, pathologists, medical scientists, rivalry, microbiologist, Haematologist and laboratory medicine.; discussions and resolutions at medical specialty conferences such Nigeria Medical Association (NMA), Medical and Dental Consultants Association of Nigeria (MDCAN) and College of Nigerian Pathologists (CNP). Knowledge about Consultant Microbiologists vis-à-vis Academic Microbiologists and related information was obtained from the public using cluster sampling method in Ondo-city where a large number of people were engaged in tailored discussion about the topic. Fellowship certificate awarded to Part II grandaunts by the National Postgraduate Medical College of Nigeria (NPMCN) was also examined. Questionnaires were administered to students of Adeyemi College of Education Ondo-City to assess their understanding on differences between Medical/Consultant Microbiologists and academic Microbiologists (MSc/PhD). Data gathered was analysed qualitatively and quantitatively using arithmetic parameters, and Epi-Info 6 where applicable to situate the relevant subspecialties of Pathology, along with their names prone to friction with laboratory scientists across the country and findings reported as such.

RESULTS

An assessment of the rate of frictions among Pathologists and Medical Laboratory Scientists (MLS) among the 37 health centres across the country surveyed showed that: 46.0% (n=17), 24.3% (n=9), 18.9% (n=7) and 10.8% (n=4) were most prevalent in Medical Microbiology, Haematology, Chemical Pathology and Anatomic Pathology respectively (Figure 1).

An analysis of the origins of the crisis among the four disciplines before it spreads to others showed 81.1% (n=30), 16.2% (n=6) and 2.7% (n=1) emanated from Medical Microbiology, Haematology, and Chemical

Pathology respectively. Crisis were not found to have originated from Anatomic Pathology in any of the centres studied 0.0% (n=0) (Figure 2).

Concerning the persistence of crisis between the MLS and Pathologists; it was observed that: the crisis persisted in 67.6% (25/37) in Medical Microbiology, 55.0% (20/37) in Haematology, 24.3% (9/37) in Chemical Pathology and 0.0% (n=0/37) in Anatomic Pathology (Figure 3).

Scrutiny of a certificate awarded to post part II Fellowship Examination candidates after a successful completion of any discipline in Pathology showed this phrase: '*is Hereby awarded the Fellowship of the Medical College in Pathology*'. This is applicable to: Medical Microbiology, Haematology, Chemical Pathology and Anatomic Pathology (Figure 4).

Among the 251 students studied at Adeyemi College of Education consisting of 172 (68.5%) males and 79(31.5%) females; 17.2% (n=43), 61.5%(n=154) and 21.3%(n=54) had spent a year or less, two years, and three years and above in the school respectively. One hundred and seventy (67.6%) and 81(32.4%) of the students were studying science-related and arts-related education courses respectively (Table 1).

An assessment of the knowledge of the students of Adeyemi College of Education on the difference between Consultant/Medical Microbiologists/Haematologists and academic Haematologists and Microbiologists showed that: 99.0% (n=248) of the students could not differentiate

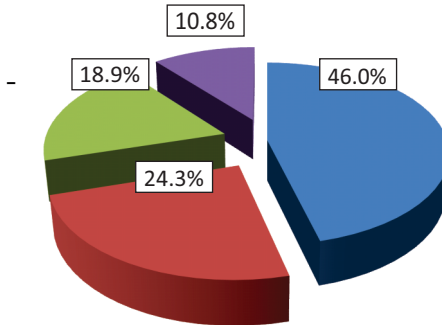


Figure 1. The rate of frictions among Pathology sub-specialties and Medical Laboratory scientists (MLS) in Nigeria (n=37).

Key

- Medical Microbiology (n=17)
- Haematology (n=9)
- Chemical Pathology (n=7)
- Anatomic Pathology (n=4)

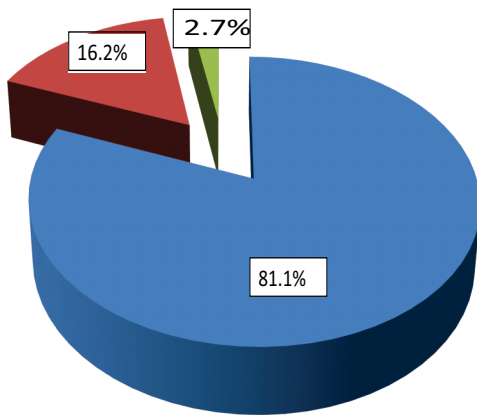


Figure 2: The origins of frictions among the Pathology subspecialties with Laboratory scientists in Nigeria (N=37).

Key

- Medical Microbiology (n=30)
- Haematology (n=6)
- Chemical Pathology (n=1)

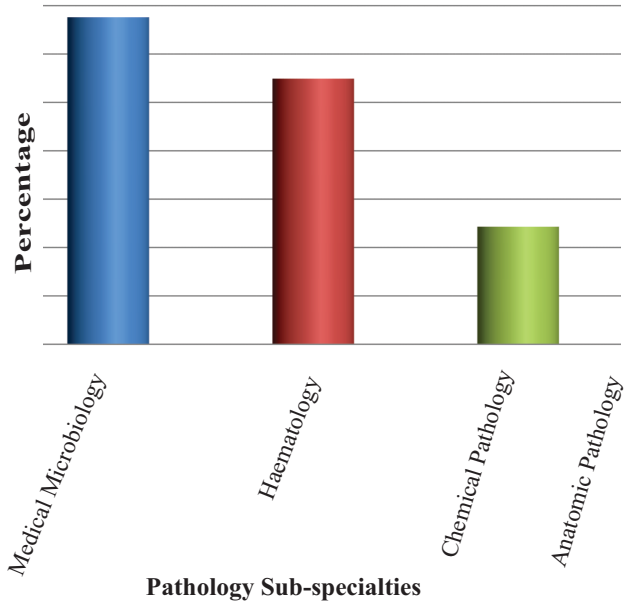


Figure 3: Pathology sub-specialties where frictions with Medical Laboratory Scientists usually do not end easily among hospitals in Nigeria.

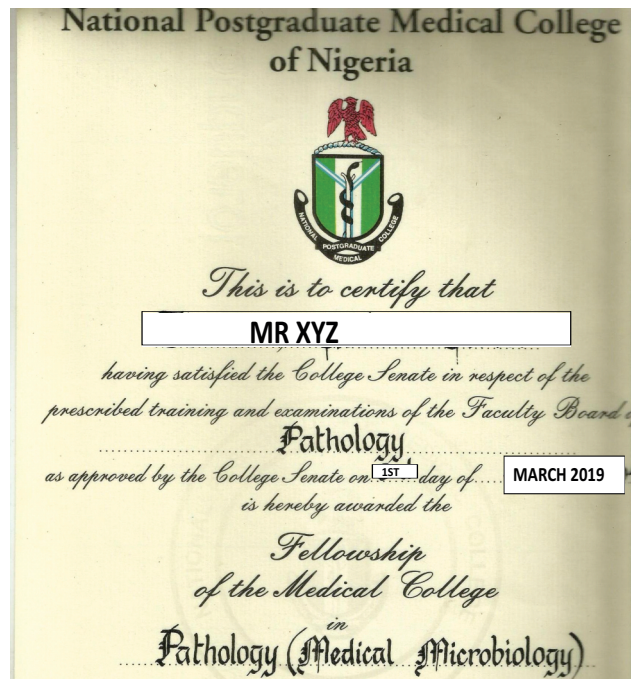


Figure 4: Certificate awarded by National Postgraduate Medical College of Nigeria (NPMCN) to Medical Microbiologists at successful completion of Part II Fellowship examinations.

Table 1: Age and gender distribution of students at Adeyemi College of Education Ondo-city, Nigeria

Age Intervals(Years)	Males	(%)	Females (%)	Total (%)
16-20	7	(2.8)	15 (6.0)	22 (8.8)
21-25	97	(38.6)	51 (20.3)	148 (58.9)
26-30	53	(21.1)	12 (4.8)	65 (25.9)
31-35	12	(4.8)	1 (0.4)	13 (5.2)
36 and Above	3	(1.2)	0 (0.0)	3 (1.2)

(N=251; Males=172, 68.5%; Females=79, 31.5%).

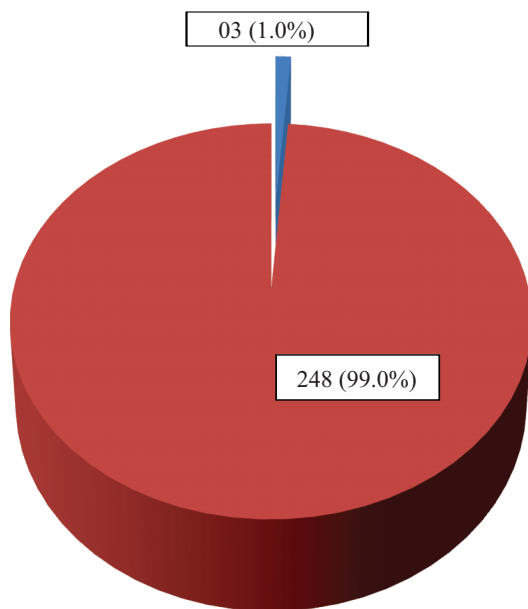


Figure 5: Evaluation of the knowledge on the difference between Consultant/ Medical Microbiologists and Academic Microbiologists among students of Adeyemi College of Education Ondo-City.

Key

- Poor or No knowledge (n=248)
- Sufficient Knowledge (n=3)

between the two while 3(1.0%) could differentiate between the two. For Anatomic Pathology and Chemical Pathology disciplines, 99.0% (n=248) of the respondents acknowledged as trained specialists that work in the hospital ($p < 0.0005$) (Figure 5).

DISCUSSION

Findings from this study clearly showed that friction between the MLS and Pathologist has become endemic and recurrent in most health centres across the country. This has the potential of greatly impeding on the work outputs and qualitative service delivery to the teeming patients that visits our hospitals on daily basis. The worst hit disciplines are Medical Microbiology and Haematology, far less in Chemical Pathology and almost non-existent in Anatomic Pathology. The situation becomes even more precarious when the training of resident doctors and medical students is greatly hampered with dire consequences on the training and availability of future professionals in the field.¹⁴⁻¹⁶ The study has clearly shown that the public do not know the difference between Consultant Microbiologists / Haematologists and Scientists that specialize in those fields or academics in the field (BSc, BMLS, HND, MSc, PhD). The fact that the public cannot differentiate between Scientists working in those disciplines from Pathologists may have contributed in building up their confidence and the level of resistance they have been raising up against Pathologists and resident doctors over the years. This level of awareness is also common among medical students as was observed in a study on final year medical students where some did not know that medical doctors can do residency training in Medical Microbiology.¹⁷ It was established in the study that the subjects interviewed could easily associate Anatomic Pathology and Chemical Pathology with specialty training involving doctors in the hospital but could not associate mostly Medical Microbiology and Haematology with Medical doctors and their specialty practice in the hospital. This mindset of not differentiating MLS form Medical doctors in these two disciplines (Medical Microbiology and Haematology)

could be the genesis of the perennial conflicts being experienced between them and the MLS in the hospital setting in the country. While the other two disciplines are generally seen as specialised disciplines of Pathology (Anatomic Pathology and Chemical Pathology), these other two (Medical Microbiology and Haematology) are erroneously not generally considered to be of same impact, purpose and usefulness to humanity as the former two. This perception unfortunately runs among Pathologists themselves and other surgical and medical specialties who sometimes consider some subspecialties of Pathology above others. Medical and Dental students should be properly indoctrinated in the course of training so as to accord a broad-based acceptability and relevance to all the medical disciplines for the health and survival of the entire profession.¹⁸

At the completion of the residency training in any sub-specialty in Pathology at the NPMCN, certificates are awarded as Fellow of Pathology with the sub-specialty in bracket. While Anatomic Pathology and Chemical Pathology are properly and correctly designated as Pathology disciplines, Medical Microbiology and Haematology has not received this proper and correct designation. These names, the authors believe, have contributed significantly to the crisis being experienced by these two disciplines in our teaching hospitals and FMCs across the country. At the UNIMED and UNIMED TH Ondo-city and Akure, Medical Microbiology has been changed to Microbial Pathology, both the discipline and the Department. This has brought peace and harmony in the Department as the MLS now know that the Department is a Pathology Department for Consultant Pathologists and doctors training to become Pathologists. MLS are only there to assist doctors and cannot lay claim to anything unless as directed by doctors; this is the benefit of giving a person a correct name and identity coupled with proper setting.¹⁹⁻²²

The authors are therefore of the view that in order to confront the present crisis involving Pathologists and MLS, the names of the disciplines having more problems and also serve as inspiration to others should be addressed.

The certificate has clearly stated it as they are all Pathologists after having gone through training in all, wrote examinations and passed. The names of the disciplines should therefore be as follows:

1. Anatomic Pathology
2. Chemical Pathology
3. Haematologic Pathology
4. Microbial Pathology

Also the respective Departments at the Colleges of Medicine and the Teaching Hospitals be re-named to reflect those new names. This would adequately give the correct identity and vision, and capture the philosophy and operational boundaries of the respective sub-specialties.¹³

For the records, a Medical Microbiologist is first of all: an MB,BS or BDS holder who has gone through residency training and has passed the final Fellowship examinations in Pathology or Laboratory Medicine of the NPMCN or that of the West African College of Physicians with sub-specialization in Medical Microbiology and Parasitology, or their equivalents of Postgraduate Medical Colleges across the globe. He or She performs the following functions among others: Managers in the Laboratory responsible for planning, organizing, leading and coordination of activities in Microbial Pathology laboratory; Physicians to the patients in managing severe infections in the hospitals across all disciplines; Primarily involved in managing STI cases; Infection control in the entire hospitals; researchers into tests' usefulness and development of new tests among. He or she helps ensure the safety of those at risk of acquiring infectious diseases, both in hospitals and the community.²³⁻²⁵

CONCLUSION

In conclusion, this study has shown that Medical Microbiology is the main sub-specialty of Pathology commonly engulfed in crisis with MLS followed by Haematology while Anatomic Pathology is the least crisis prone followed by Chemical Pathology. The names of these disciplines have contributed to the rate of the crisis and hence should be changed along with their Departments

to Microbial Pathology and Haematologic Pathology from Medical Microbiology and Haematology respectively. This will contribute to bringing a lasting peace to the effected sub-specialties in Nigeria's health sector.

Limitations

We acknowledge the fact that based on the mode of sampling adopted in the study, some of the information and data collected could not be independently verified with measurable degree of certainty. The findings should however be accepted with a possibility of error margins on some information captured here. The paper no doubt brings up a serious issue threatening the quality of healthcare services in our hospitals as well as both undergraduate and postgraduate medical training in the country.

Conflict of Interest

None declared.

REFERENCES

- Ojo BA, Abdulkareem IS, Izebu MC. The choice of morbid anatomy as a career by medical undergraduates in a developing country. *NQJHM* 2005;15(2):64-66.
- Meka IA, Okoye HC, Ugwu AO, Yahaya IA. Assessment of the knowledge of Pathology for clinical medical students- a multi-centre study. *Asian Archives of Pathology*, 2018; <https://www.asianarchpath.com/view/117>. Accessed 7th November, 2019.
- Ntiamoah P, Monu NR, Abdulkareem FB, Adeniji KA, et al. Pathology Services in Nigeria: Cross-Sectional Survey Results From Three Cancer Consortia. *J. of Global Oncology* 2019 :5, 1-9
- Humphrey G. Lab Scientists Beat Medical Doctors At UCTH Over Interference - <https://www.nairaland.com/5400434/lab-scientists-beat-medical-doctors>. Accessed 7th November, 2019.
- Aregbeshola BS. Disharmony and unhealthy rivalry among health professionals in Nigeria. <https://www.internationalhealthpolicies.org/blogs/disharmony-and-unhealthy-rivalry-among-health-professionals-in-nigeria/>. Accessed 7th November, 2019.
- Nigerian Medicals. Court orders govts to create dept for medical scientists. <http://nigerianmedicals.com/court-orders-govts-to-create-dept-for-medical-scientists/>. Accessed 7th November, 2019.
- Leadership. Medical Consultants Condemn Inter-professional Rivalry In Health Sector. *Nigeria Leadership Newspapers*, 2018. <https://leadership.ng/2018/09/24/medical-consultants-condemn-inter-professional-rivalry-in-health-sector/>. Accessed 7th November, 2019.
- Nairaland Forum. Why The Professional Rivalry And Disharmony Among Medical And Health Workers? <https://www.nairaland.com/935685/why-professional-rivalry-disharmony-among>. Accessed 7th November, 2019.
- Tribune. NMA, AMLSN resolve to end inter-professional rivalry, strikes in health sector. *Nigeria Tribune Newspapers*, 2017. <https://tribuneonline.ng/nma-amlsn-resolve-end-inter-professional-rivalry-strikes-health-sector-2/>. Accessed 7th November, 2019.
- National Wire. Rivalry In Health Sector: Experts Harp on Interprofessional Collaboration. *National Wire*, 2017. https://nationalwire.com.ng/rivalry-in-the-health-sector-experts-harp-on-interprofessional-collaboration/#.XcVLRtUo_IU. Accessed 7th November, 2019.
- Lambo E. Time to end beauty contest in health sector. *The Nigerian Nation Newspapers*. <https://thenationonline.net/lambo-time-to-end-beauty-contest-in-health-sector/>.
- Olatinwo A. Managing inter-professional relationships in health sector. *The Nigerian Nation Newspapers*, 2014. <https://thenationonline.net/managing-inter-professional-relationships-health-sector/>. Accessed 7th November, 2019.
- Onyeji E. Five Nigeria health sector challenges new Ministers should urgently tackle. *Premium Times*, 2019. <https://www.premiumtimesng.com/health/health-news/348776-five-nigeria-health-sector-challenges-new-ministers-should-urgently-tackle.html>. Accessed 7th November, 2019.

14. Iyoke CA, Lawani LO, Ugwu GO, Ajah LO, *et al.* Knowledge and attitude toward interdisciplinary team working among obstetricians and gynecologists in teaching hospitals in South East Nigeria. *J. of Multidisp Healthcare*, 2015; 8: 237-244.
15. Choi BC, Pak AW. Multidisciplinarity, interdisciplinarity and transdisciplinarity in health research, services, education and policy: definitions, objectives and evidence of effectiveness. *Clin. Invest Med.* 2006;29:351–364.
16. Paul S, Peterson CQ. Interprofessional collaboration: issues for practice and research. *Occup. Theory Health Care.* 2001;15:1–12.
17. Jombo GTA. Pathology as a profession: contribution of undergraduate training on choice of career among final year students of a medical school in north central Nigeria. *Nig. J of Medicine* 2006; 15(3): 309-313.
18. World Health Organization. Framework for action on interprofessional education and collaborative practice. Geneva, Switzerland: World Health Organization; 2010.
https://www.who.int/hrh/resources/framework_action/en/. Accessed 7th November, 2019.
19. Adindu A, Asuquo A. Training human resource for 21st century Nigerian health sector. *Global J. of Human Resource Management.* 2013;1:1–11.
20. Manias E. Effects of interdisciplinary collaboration in hospitals on medication errors: an integrative review. *J. Expert Opinion on Drug Safety*, 2018; 17: 3e.
<https://www.tandfonline.com/doi/citedby/10.1080/14740338.2018.1424830?scroll=top&needAccess=true>. Accessed 7th November, 2019
21. Durand R. Creating a Collaborative Laboratory: Reaping the benefits of a truly collaborative environment. *LabManager*, 2016.
https://www.labmanager.com/leadership-and-staffing/2016/10/creating-a-collaborative-laboratory#.XcVbUNUo_IU. Accessed 7th November, 2019
22. Gaboury I, Lapierre LM, Boon H, Moher D. Interprofessional collaboration within integrative health care clinics through the lens of the relationship-centred model of care. *J Interprof Care.* 2011;25:124–130.
23. The Royal College of Pathologists. Curriculum for specialty training in medical microbiology. Joint Committee on Pathology Training, The Royal College of Pathologists, London 2012.
24. Microbe Online. <https://microbeonline.com/roles-medical-microbiologist/>. Accessed 14th November, 2019.
25. Health Careers. Medical Microbiology and Virology (Doctor). <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/pathology/microbiology-and-virology-doctor>. Accessed 14th November, 2019.

*