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Assessment f Evidence-Based Practice in a Tertiary Health Institution in Nigeria Using Laboratory Result

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ABSTRACT

Medical laboratory services provide the largest body of empirical data that constitute the evidence in health care practice. It is the aim of this work to assess the usage of evidence –based practice by clinicians in our public health institution. One thousand (1000) structured questionnaires were distributed among clinicians working in one urban tertiary institution in Nigeria after given their consents to participate. The results showed that pediatrics department participated more with a percentage of 27.8% (270/970) while Community medicine showed least participation with 7.2%(70/970) .All respondents affirmed that the use of laboratory results prior to the treatment of patients is necessary. However, 75% of the respondents agreed that the formats of reporting laboratory results are standard and clear. The study further revealed that 46% of the doctors believed in having discussion with the laboratory staff over laboratory test results for better understanding as opposed to 54% who say it is not necessary. The study also showed that 71% of the doctors in the hospital usually do not request for the results of the ordered test when the patient has commenced treatment. Seventy percent (70%) of the doctors affirmed positively that the results are delivered on time. In conclusion, although clinicians agree on evidence –based practice, a greater number still do not practice it in true sense.

INTRODUCTION

Evidence-based medicine is the conscientious, explicit and judicious use of the best evidence in making decisions about the care of individual patients. In this age of evidence-based health care practice, medical laboratory services provide the largest body of empirical data that constitute the evidence (Bruns et al 2003). Health care cost has consistently been on the increase and so has the concern for improved health outcomes globally. Alongside these, has been the demand for more of the practice of evidence-based medicine; Laboratory medicine being the discipline involved in the selection, provision and interpretation of diagnostic testing using primarily samples from patients. Although the tools provided by laboratory medicine are called diagnostic tests, 'tests' are used far more broadly than in making a diagnosis. They are also use in making a prognosis, excluding a diagnosis, monitoring a treatment or disease process and screening for disease (Burtis et al 2008, Rosenberg. & Donald 2005). Good clinicians have been reported to use both individual clinical expertise and the best available external evidence in their practices (Sackett, et al, 2006). The practical treatment of patients requires a reliable diagnosis and prognosis followed by therapy, therefore, effective use of laboratory medicine can benefit patients by helping clinicians provide the best available health care using information from laboratory results.

MATERIAL AND METHODS

One thousand (1000) structured questionnaires were distributed among clinicians working in the University of Calabar Teaching Hospital, Calabar, Cross-River state, out of which Nine hundred and seventy (970) valid responses were retrieved. The clinicians cut across departments of Community Medicine, Internal Medicine, Obstertrics and Gynaecology, Surgery, Paediatrics and Ear Nose Throat (ENT). Seven questions among others were used to assess the impact of evidence based medicine in our hospital. The data generated from the well completed questionnaires were presented in percentages and figures.

RESULTS

The percentage distribution of the clinicians according to their departments is shown in Figure 1.

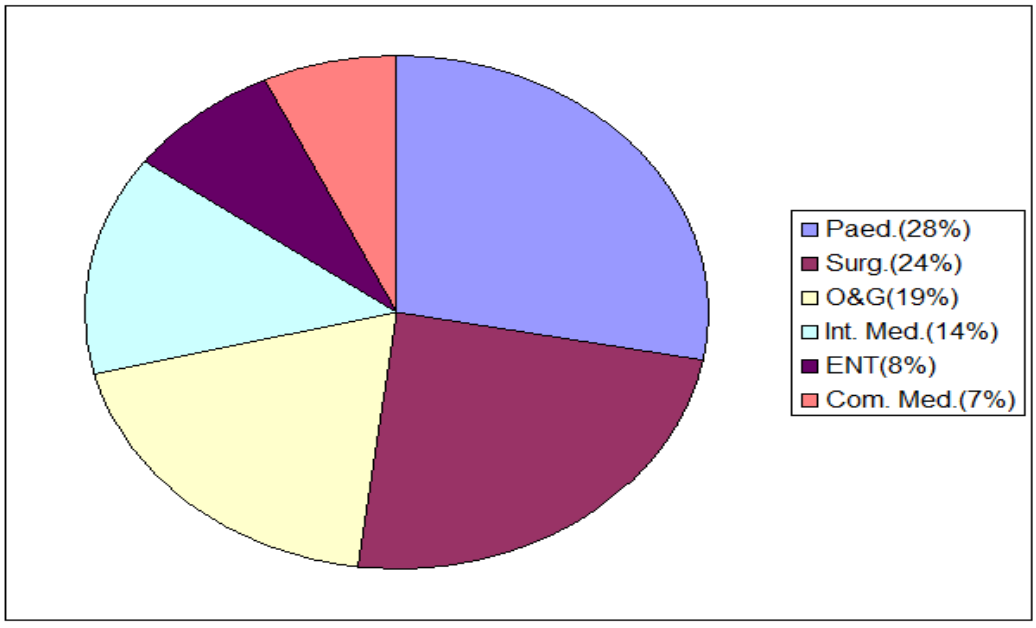

Fig. 1: Percentage distributions of respondents based on departments

Pediatrics department ranked highest with 27.8% (n=270) followed by Surgery with 24.2% (n=235), Obstetrics and Gynecology with 18.6% (n=180), Internal medicine with 14.4% (n=140), ENT with 7.7% (n=75) and Community medicine showing the least with 7.2% (n=70).

All respondents affirmed that the use of laboratory results prior to the treatment of patients is necessary. However, 75% (728/970) of the respondents agreed that the format of reporting laboratory results are standard and clear, while 25% (242/970) disagreed on the clarity of reporting laboratory results (table 1).The study further revealed that 46%(446/970) of the doctors

believed in having discussion with the laboratory staff over laboratory test results for better understanding as opposed to 54% (524/970) who say it is not necessary (table 1).

The study also showed that 71% (689/970) of the doctors in our hospital usually do not request for the results of the ordered test when the patient has commenced treatment as against 29% (281/970) who still incorporate laboratory findings into the overall management of their patient even though they have commenced treatment (table 1). Seventy percent (679/970) of the doctors affirmed positively that the results are delivered on time while 30% (291/970) had a contrary view over timely delivery of results (table 1).

Table 1: Percentage distribution of responses by the doctors

DEPT.		PAED.	SURG.	O/G	INT.MED.	ENT	COM.MED.	TOTAL
TOTAL		270	235	180	140	75	70	970
PERCENTAGE		27.8	24.2	18.6	14.4	7.7	7.3	100
Q1(%)	YES	27.8	24.2	18.6	14.4	7.7	7.3	100
	NO	0	0	0	0	0	0	0
Q2(%)	YES	19 (184/970	20(194/970)	17(165/970)	7(68/970)	5(49/970)	7(68/970)	75(728/970
	NO	9(87/970)	4(39/970)	2(19/970)	7(68/970)	3(29/970)	0(/970)	25(242/970
Q3(%)	YES	10(97/970)	14(136/970)	11(107/970)	3(29/970)	2(19/970)	6(58/970)	46(446/970
	NO	18(175/970)	10(97/970)	8(78/970)	11(107/970)	6(58/970)	1(9/970)	54(524/970)
Q4(%)	YES	18(175/970)	24(233/970)	15(146/970)	1(9/970)	5(49/970)	7(68/970)	70(679/970
	NO	10(97/970)	0(0/970)	4(39/970)	13(126/970)	3(29/970)	0(0/970)	30(291/970
Q5(%)	YES	7(68/970)	6(58/970)	11(107/970)	12(116/970)	8(78/970)	7(68/970)	51(495/970
	NO	20(194/970)	18(175/970)	8(78/970)	2(19/970)	1(9/970)	0	49(475/970
Q6(%)	YES	5(49/970)	3(29/970)	7(68/970)	6(58/970)	3(29/970)	5(49/970)	29(281/970
	NO	23(223/970)	21(204/970)	12(116/970)	8(78/970)	5(49/970)	2(19/970)	71(689/970

KEY
Q1-percentage use of laboratory results prior to the treatment of patients.
Q2-percentage responses on the clarity and standard of reporting results.
Q3-response of doctors based on 'discussion with the laboratory staff over patients' results'
Q4-timely delivery of laboratory results.
Q5-regular use of ordered laboratory test results.
Q6-response on usage of ordered test results even when the patient has commenced treatment.

DISCUSSION

Doctors in six different departments of the hospital participated in this study with a greater number coming

from Pediatric department. This is understandably so because children, particularly those under five years are more vulnerable to ill-health than adults as reported by Sackett et al (1996). However doctors in community medicine department participated least in the study probably because more of their activities lie outside the hospital premises. Although all respondents affirmed the need for laboratory results prior to treatment of patients, which is indicative of increased probability of improved health outcomes for the patients treated and managed in the hospital, a significant percentage 242/970 (25%) of the doctors regrettably expressed dissatisfaction with the laboratory result format of reporting. Furthermore, While 54 % (524/970) believed that they cannot have discussion with the laboratory scientist over unclear reporting of results, 46% (446/970) do go to the laboratory staff for clarity. The reasons for this poor communication included; lack of proper orientation on the wider scope of information obtainable from the laboratory as well as personal handicaps in communication skills. The implication of this finding is that quite a number of patients may not be properly managed and treated by such doctors. This may be detrimental to the patient's life. We therefore advocate for enhanced communication between the laboratory and the end users of their services as it can be achieved when health workers approach healthcare as a team.

Findings have shown that laboratory tests are often ordered prior to the treatment of patients but 71% (689/970) of the respondents do not see the need to use the ordered laboratory test when the patient has commenced treatment, especially when there are signs of recovery, while 29% (281/970) of the doctors still request for their ordered tests. This is quite alarming and calls for a total check and overhaul of the management systems used by doctors for better patient care. The possibility that the actual cause of the illness might not be known is on the increase, which could cause greater harm to the patient in future as well as increased cost of healthcare for the patient. This lapse is not totally unlinked with untimely delivery of patients' results in our locality as expressed by 30% (291/970) of the respondents.

Power interruption in hospitals, lack of back -up equipment in face of equipment breakdown, use of obsolete methods and procedures are some of the challenges of improved healthcare delivery in developing countries, affecting among other things the timely delivery of results. The implication of course is the inefficient practice of evidence-based medicine, hence the need to continually seek and achieve globally required standards for improved laboratory services.

In conclusion, this work has shown that use of laboratory results prior to the treatment and management of patients is very necessary and practiced in the University of Calabar Teaching Hospital. However, usage of ordered test results even when the patient has commenced treatment should be encouraged among the doctors.

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