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PROVISION OF REMOVABLE DENTURE PROSTHESIS AT A UNIVERSITY TEACHING HOSPITAL IN KENYA
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PROVISION OF REMOVABLE DENTURE PROSTHESIS AT A UNIVERSITY TEACHING HOSPITAL IN KENYA

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ABSTRACT

Objective: **To compile an audit of removable denture prosthesis fabricated for patients attending a teaching clinic.**
Design: **A retrospective analysis.**
Setting: **Division of Prosthetic Dentistry, Faculty of Dental Sciences, University of Nairobi, Nairobi, Kenya.**
Method: **Clinical records of the patients attended to in the prosthetic teaching clinic from 1993 to 1997 inclusive were analysed to extract information regarding the quality of clinical notes and the pattern of provision of prostheses.**
Results: **A total of 817 patients were provided with dentures of whom 602 were provided with complete upper and lower dentures. Single complete dentures were fabricated for 18 patients and 197 patients had partial dentures fabricated.**
Conclusion: **While the number of prostheses provided may be in conformity with the unit resources, clinical notes were found to have significant omissions for which recommendations have been suggested.**

INTRODUCTION

The University of Nairobi Dental Hospital trains undergraduate dental students by way of lectures, clinical and practical work under the supervision of tutors. The replacement of lost or missing natural teeth by dentures is done in the prosthetic dentistry clinic which mainly provides removable prostheses. The main types of prosthesis provided include complete and partial acrylic dentures. Chrome-cobalt partial dentures, though available, remain unaffordable to most patients. Patients requiring complete dentures for the bulk of the clinic attendants who are usually elderly persons brought by their relatives who are concerned about their inability to chew food and; to some extent, their compromised facial appearances (aesthetics). Patients requiring partial dentures who attend are mainly concerned about their facial appearance due to the loss of anterior teeth.

As a teaching institution, it is important to exercise reasonable diligence with regard to the quality of service offered to the patients, and determine whether such services meet professionally recognised standards of health care. To avoid any form of official complaint, or even litigation, clinicians must put in place a system which enables them to review, evaluate and help them improve their practices. Such a system should allow changes to be made in the process of care while at the same time monitoring the outcome of care provided(1).

Establishment of an audit system in every department participating in health care delivery is therefore, encouraged. Medical audit is a systematic evaluation of quality of patient care as seen in medical records, including efficiency analysis and prescription for corrective action(2,3). The records may provide details about the process of care, things done and things not done for the patient(1). To date no audit has been compiled at the Division of Prosthetic Dentistry of the University of Nairobi. The purpose of this investigation was to compile an audit of the removable denture prostheses fabricated at the division. This should serve as a basis for comparison for subsequent audit analyses and also provide baseline statistics for effective planning with regard to removable denture prosthetic treatment.

MATERIALS AND METHODS

Treatment records of the patients attended to in the prosthetics teaching clinic at the Dental Hospital over the period 1993 to 1997 inclusive, were examined. The records comprised printed sheets of paper kept in an A4-size envelope bearing the patient's name and registration number. The procedure performed by the students was recorded in the treatment sheets. A specially designed form was used to manually record the type of prostheses provided and the gender of the patients. Tally method of analysis was used to analyse the findings.

RESULTS

A total of 817 patients (458 females and 359 males) were treated in the Prosthetic Division of whom 602 were provided with complete upper and lower dentures (Table 1).

Single complete dentures were fabricated for 18 patients (eleven females and seven males).

Table 1

The distribution of complete upper and lower dentures provided to patients according to year

Year	No. of patients		Total
	Male	Female	
1993	59	74	133
1994	34	32	66
1995	67	85	152
1996	65	85	150
1997	44	57	101
Total	269	333	602

Table 2

Acrylic partial dentures fabricated for male patients according to year

Year	No. of patients			Total
	Upper	Lower	Both upper and lower	
1993	14	6	8	28
1994	–	–	–	–
1995	23	5	7	35
1996	5	3	1	9
1997	6	1	1	8
Total	48	15	17	80

Table 3

Acrylic partial dentures fabricated for female patients according to year

Year	No. of patients			Total
	Upper	Lower	Both upper and lower	
1993	14	12	10	36
1994	–	–	–	–
1995	23	7	12	42
1996	12	3	3	18
1997	7	2	1	10
Total	56	24	36	106

Acrylic partial dentures were provided to 186 patients (Tables 2 and 3). Only eleven patients (eight females and three males) were provided with chrome-cobalt partial dentures. Whether some of the dentures provided were of immediate or overdenture type was not documented in the records. The shade and mould of the artificial teeth used was not documented in the records.

DISCUSSION

Eighty one students qualified from the institution over the study period. On average, each student fabricated seven complete dentures. Given that each student is required to fabricate ten complete dentures, five acrylic partial dentures and one chrome-cobalt partial denture, subject to availability of materials and patients; it suffices to appreciate that the general pattern of removable denture prostheses provided over this period was satisfactory. In all categories of dentures provided, females outnumbered males, probably due to the fact that females are more conscious of their facial appearance than males. The small number of patients provided with chrome-cobalt partial dentures may be related to two main reasons; namely: problems associated with procurement of materials and secondly, the fact that they are more expensive compared to the acrylic partial dentures.

Dentures serve to restore aesthetics, self-esteem and function, especially speech and mastication. The effectiveness of a denture is directly related to the patient's ability to perform these functions. The mould and shade of the artificial teeth used are of value not only in case of future repairs but also for forensic purposes. The failure to record the mould and shade of teeth used and also parameters that may aid the clinician in assessing the effectiveness of the denture is a significant deficiency in the current practice. This deficiency is thought to be an omission in the treatment records rather than lack of knowledge or skill. In order to improve on the current method of record keeping, the following suggestions are recommended: The need to re-design the patients treatment records to provide for documentation of comprehensive patient details; improvements need to be made in record keeping. Computerisation of the records as opposed to the current practice is suggested and a formal prospective audit by the division should be undertaken at regular intervals.

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