<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>Dental implant service in Hong Kong - demand and supply</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Author(s)</strong></td>
<td>She, TT; Lo, ECM</td>
</tr>
<tr>
<td><strong>Citation</strong></td>
<td>The 13th Annual Scientific Meeting of the International Association for Dental Research (Southeast Asian Division), Kuala Lumpur, Malaysia, 1-3 October 1998. In Journal of Dental Research, 1999, v. 78 n. 5, p. 1174, abstract no. 35</td>
</tr>
<tr>
<td><strong>Issued Date</strong></td>
<td>1999</td>
</tr>
<tr>
<td><strong>URL</strong></td>
<td><a href="http://hdl.handle.net/10722/53210">http://hdl.handle.net/10722/53210</a></td>
</tr>
<tr>
<td><strong>Rights</strong></td>
<td>This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.</td>
</tr>
</tbody>
</table>
Divisional Abstracts: Southeast Asia Division

K.J. TOMBAS* and M.E. CURzon (Department of Pedodontic Dentistry, Leeds Dental Institute, Leeds, UK).

Cheeses are frequently recommended as snack foods which are safe for teeth. The aim of this study was to investigate the degree of mineralisation of hard plaque after exposure to four different cheddar cheeses using the intra-oral caries testing kit of Koukolides et al (1976). Four cheddar cheeses were used in this study: slices, block, spread and toys. 10% sucrose and 10% sorbitol solutions were used as post-prandial substrates respectively. Five adult volunteers with a DMFS score ≤1 wore a lower removable retainer with one gauze covered human enamel slab (3mm×3mm) and placed on each tooth for 20 min. A baseline measurement (in vivo) of microhardness (SMH) test was performed for each enamel slab using a Knoop diamond with a 100 µm load. Each volunteer was instructed to immure the appliance in the test or control solutions for 10 mins four times daily for a period of five days. 10g of the test cheeses were chewed by the volunteers for 60 sec to obtain a cheese/saliva slurry which was used to cover the enamel slabs for the 10 mins immersion periods. SMH testing was repeated after the five day test periods.

The mean (SD) differences in hardness between the test and control groups were: 0.62±0.07% for the slices, 1.42±0.05% for the block, 1.02±0.07% for the spread and 2.06±0.31% for the toys. ANOVA and Tukey’s test analysis showed that sucrose was significantly (p<0.01) different to all other test conditions. In conclusion the cheeses tested showed low cariogenic potential and can be regarded as safe for teeth.

34. The pattern of caries attack and implications for caries control in 16-year-old schoolchildren.
R. ABU-KASSIM*, N. JAAFAR* (Ministry of Health Perak, Malaysia) and S. MIYAMOTO*. (Faculty of Community Dentistry, University of Malaysia).

Most national surveys of dental caries report the prevalence and mean experience using the DMFT and DMFS index. However these indices do not monitor the changing patterns of caries attack when overall caries start to decline. Consequently, the impact of restorative policies to reduce the DMFT index cannot be estimated. The aim of the DMF was (1) to determine the caries experience using the DMFT index and (2) to identify the predominant pattern of caries attack with a view to find effective treatment and control strategies. The sample consists of 648, 16-year-old Malay schoolchildren in Perak, taken from 5 randomly selected schools. Two schools were urban and 3 were rural. Clinical examination for caries experience (DMFT and DMFS) and the pattern of caries attack were recorded for each tooth. The mean DMFT was 3.43 (sd 3.04) and DMFS 5.14 (sd 5.65). This may be considered low for a 16 year-old population. However, only 18.8% were caries-free. Almost all restorative treatment needs had been met (99.4%). The biggest contributor to the DMFT index was from the F component (93%). The majority of the caries were concentrated on molar teeth (77.2%). More than two-thirds of the children (67.5%) were exclusively occlusal carious. Almost 15% of the caries were associated to a pit & fissure origin. Most of the restorations (87.3%) were simple (one surface) restorations. The most common material used for restorations was amalgam (86%).

In summary: this pattern of DMF/F, F component that lead to that the reduce DMFT index in this population, the best strategy is to concentrate on the prevention of pit & fissure caries such as applying fissure sealants to the molars within the first three years after eruption.

35. Dental implant service in Hong Kong - demand and supply
T.T. SHE* and C.M. LO (Faculty of Dentistry, The University of Hong Kong).

Dental implant has been shown to be successful and has become an important treatment in the replacement of missing teeth. However, no information on the provision of dental implant service in Hong Kong was available. The objectives of this study were to describe the prevalence of dental implant treatment among Hong Kong adults, to find out the nature of dental implant procedures being performed by dentists, and to determine the characteristics of dentists who provided this treatment with those who did not. This study consisted of a mailed questionnaire survey of 160 randomly selected dentists in Hong Kong and a telephone survey of 36 dentists. Of 100 questionnaires returned by the dentists and 314 adults were interviewed. Only 16% of the interviewees had heard of dental implant though the percentage was higher in the younger age and higher education groups. None of them had ever received dental implant. Most respondent dentists had received some form of dental implant training but the training varied a great deal. One-quarter of them had provided some form of implant treatment to their patients. Proportionally more dentists who provided implant treatment had received training involving real patients than dentists who did not. In conclusion, the prevalence of dental implant treatment among Hong Kong adults was very low. Yet a significant percentage of Hong Kong dentists had provided or potentially can provide this treatment.

36. Dental therapy and Patient Satisfaction in Elderly Chinese in Hong Kong
H.C. SHIU* and J.E. DYSON* (Oral Rehabilitation, Faculty of Dentistry, HKU).

Relatively little information is available on the strain rates and wearing habits of the elderly (+65 years old) population in Hong Kong.

The aim of the present study was to investigate the relationships between denture quality, denture wearing habits and patient satisfaction of a group of 216 elderly individuals (64 male, 147 female) aged 65-95 (mean age 77) who possessed one or more partial or complete denture. The 8 variables included in the study, 81 of these residents of one of three homes for the aged. velocity. In 1978 it were 86 were attended to provide them with their dentures and the patients for which the dentures were worn. Using criteria adapted from previous authors (Rand 1978). Magnessen 1986, Vigild 1986) the dentures were examined with respect to their esthetics, stability, retention, occlusal relationships, surface weight and presence of other factors. Overall, 76% were satisfied in both jaws, and a further 24% were indifferent in one or other jaw. The remaining 9% had some teeth in both jaws.

Although most patients (92%) expressed no complaint about their dentures, many of these had relatively severe defects, particularly with respect to retention. Regarding the genus overall, patient satisfaction did not appear to be associated with the variables related to the denture condition or utilization. However, when patient gender and age of the dentures were considered some significant relationships were found.

37. The Profile of Partial Denture Patients Attending an Academic Institution.
S.B. Keng* and P.P.Loo (Faculty of Dentistry, National University of Singapore).

Patients who exhibit partial edentulism require the replacement of lost teeth to restore oral function and appearance. The type of patients seen together with the clinical conditions they present will provide useful information to assist prosthodontic treatment planning. The aim of this study was to obtain basic information as regards to the presenting clinical conditions in the mouth together with the status of prosthesis in use. 310 clinical hospital denture patient records were randomly selected for the study. The data collected were from private patients who used the prosthodontic department of the Faculty of Dentistry.

The following related information were gathered together and extracted for the study: 1) Patient: face form, prosthetic history, reason for replacement of the prosthesis, status of the dentition, 2) Prosthesis: PDG findings 9 Periodontal status. 3) Clinical Condition: occlusal classification, alveolar ridges, abutment tooth status, reasons for replacement of the prosthesis, edentulous condition). 4) Others: age, sex, smoking, medical conditions, reasons for treatment. The study showed that 72% of the patients had full mouth edentulous. The age factor ranged from 20 to 90 years old. More than 50% had some degree of periodontal disease activity. The most common medical conditions were diabetes and hypertension. Patients who were planning for implant treatment were excluded from the study. Only 15% of the patients showed that the prosthesis was the permanent solution for the edentulous condition.

B.N. DARWELL and J.E. DYSON* (Dental Materials Science and Oral Rehabilitation, Faculty of Dentistry, The University of Hong Kong, Hong Kong).

The longevity of dental air turbine handpiece bearings has been of concern for a long time, but with routine autoclaving now the norm the focus of this concern becomes a major selection criterion. A satisfactory method of testing these bearings is therefore of interest. The variables relevant to dental air turbine handpiece testing have been identified by Dyson & Darwell (1997). The measurement of these, however, requires complex machines and the noise level involved an elaborate and expensive test. Methods such as those proposed through the application of the procedure in a realistic test environment. The equipment will have a variety of other applications in standards compliance testing, design development, and maintenance checks.

This work was supported by The University of Hong Kong CRCO grant nos. 335.250.001 and 337.255.0002.

39. The Discharge of Lubricant from Dental Air Turbine Handpieces.
S.M. PONG* and J.E. DYSON* (Oral Rehabilitation, Faculty of Dentistry, HKU).

It has been well recognised that wear debris released from dental equipment during routine procedures may contaminate the field of operation and compromise the results of treatment techniques. The aim of the present study was to report on the discharge of lubricant from dental air turbine handpieces and to discuss its clinical significance in this context. Peroxide L. A second type was used where the lubricant was superimposed (Krav's spray, Krav's Germany). The former was used to lubricate 4 examples of one brand of handpiece and the latter 4 was used to lubricate 4 examples of one brand of handpiece. The lubricant (K-Rex, U.S.A.) according to manufacturer's instructions. Each handpiece was then allowed to run on air at the manufacturer's recommended speed and pressure for the period of a chart recording period. Observations were made of the oil discharged on to the chart over a 40 minute period.

Bone Level I. A second type was used under investigation (Krav's spray). The lubricant was superimposed over time. One example of each of seven different models of handpieces was tested. For this, each handpiece was dismounted, cleaned and prepared. Standardisation was achieved using the Krav's spray, the handpiece was lubricated. It was then allowed to run on air at the manufacturer's recommended speed and pressure for a period of 240 minutes. At fixed time intervals the handpiece was re-examined to determine the amount of lubricant discharged. All the handpieces in both tests were documented continuously with lubricant of the entire test period. Most oil, however, was discharged in the first minute. Analysis of the data from Experiment II, established a linear relationship (R2 = 0.94) between the number of exposures and the amount of lubricant released. Females were found to be more prone to oil discharge than males. The commonest reasons for not exercising the specific rights were “not the dentist” and “dentist has done”. In conclusion, it was found that not only the public, knowledge of their rights but also the effectiveness of their rights. Further reinforcement in educating the public about the rights of accessing one’s own medical information, to receive quality dental care such as treatments with adequate pain control and to be informed of the alternative treatment options was necessary. Approximately one third of the patients, rights the public knew had been exercised. This proportion was relatively constant no matter how many rights the respondents knew.