Clinical Audit Division
Department of Dental Services
Ministry of Health
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Inside this issue:

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Welcome Address

The Clinical Audit Division (CAD) of the Department of Dental Services is very pleased to produce our first audit bulletin which has been brought to fruition mainly by the diligence of Dr Hjh Wardati Hj Yakob, and all the 'pioneer' auditors. Clinical audits are not research but instead help to systematically analyse if we are meeting 'standards'. By publishing completed audit reports, in this bulletin, it is hoped that the first steps towards improvement in our services can therefore be undertaken, and that all categories of dental personnel can be encouraged to conduct clinical auditing. We hope you find this bulletin both interesting and informative.

Dr Grace Ang
Head of CAD

Clinical Audit Division

The Clinical Audit Division (CAD) was formed on 12th July, 2011 with members representative of various dental specialties.

What is our aim?

CAD aims to improve the quality of clinical care in the Department of Dental Services by creating a culture committed to learning through the systematic review of care i.e. audits.

What are our objectives?

- To encourage audit culture among dental personnel.
- To give advice, help and facilitate audit projects.
- To receive and verify completed audits as well as to support claim for CPD points.
- To publish completed audits periodically for dissemination to all dental personnel.

What is Clinical Audit?

Clinical Audit is about asking the question 'Are we doing the right thing in the right way?'

It is defined by the National Institute for Health and Clinical Excellence as '**a quality improvement process that aims to improve patient care and outcomes through systematic review of care against explicit criteria and the implementation of change'.**

Clinical Audit process is often described as the audit cycle' (see figure 1)

Figure 1: Audit Cycle

CAD Guidelines on Planning and Conducting an Audit

To help those who are interested in carrying out clinical audits, CAD has come up with two advice sheets, namely:
(1) Guidelines on planning and conducting an audit
(2) Guidelines on reporting audit results to the CAD

You are advised to follow these guidelines when performing an audit project.

CAD guidelines on planning and conducting an audit are as follows:

- Identify the **topic** that will review care that is currently being provided. The topic should be **realistic** and **measurable** (so will allow improvement in clinical practice; increase efficiency and/or be cost effective).
- **Check with Clinical Audit Division** (by sending an e-mail to: angjess@yahoo.com; grace.ang@moh.gov.bn; wardati.yakob @moh.gov.bn; and jacsenyum@gmail.com) that someone else is not already conducting the same/ similar audit at your area, or if they are, either you collaborate with them, change your audit sample or audit another matter. The division may be able to provide you with further advice and suggestions on your project.
- Conduct **literature search** on your topic utilizing journals, internet e.g. http://scholar.google.com/ and http://www.ncbi.nlm.nihgov/pubmed/, http://www.doaj.org or via RIPAS library subscriptions. Other avenues e.g. Medline or Cochrane – may require payment, unless RIPAS Hospital has access. Often we can access abstracts of published articles for free: if the author has a contact address, you may write directly to the author and request a copy of the article from them.
- **Set the standard** you wish to compare against. The literature search may provide the internationally accepted standards for what it is you wish to measure/ review/ compare against. If there is none, you and your team may set an acceptable standard according to current best practice.
- **Identify the criteria** which you will use to measure your performance against the standard set.
- Decide how you will **measure the data**, with appropriate definitions so others can understand your process.
- Decide if your criteria can be collected via a **Retrospective or prospective** audit.
- Decide on **inclusion and exclusion criteria**, if appropriate.
- **Sample size** – on average you will require 30 -100 of the criteria you want to audit. Too small a sample size means you cannot get much useful information.
- Decide on the **time frame** for data collection – ideally audit should be completed within 6 months.
- Try to **minimize bias in sample selection**. Be aware of time bias e.g. results collected in certain calendar months may differ from another period. Operator bias may exist as well.
- Design the **data collection sheet**. Trial it to see if it works. The data collection sheet should measure what you want to measure and be easy to fill (to encourage people to participate with you).
- Decide **who** will be involved.
- Write your proposal and submit as doc/ docx to Clinical Audit Division via e.mail to angjess@yahoo.com ; grace.ang@moh.gov.bn; wardati.yakob @moh.gov.bn; and jacsenyum@gmail.com, titled as Audit Proposal from (your name) ASAP. The Clinical Audit Division will advise on any necessary improvements to your proposal, so please allow at least a month for this process before your planned start date.
- Your proposal should broadly follow the headings:
  COVER PAGE
  TITLE
  INTRODUCTION
  AIMS
  OBJECTIVES (if appropriate)
  STANDARDS
  MATERIALS AND METHODS
  (refer to next page)
- After CAD has commented on your proposal and any necessary improvements made, proceed with your audit. **Collect data and analyse–** usually simple descriptive statistics will be sufficient. Audit is NOT research (but may lead to it).
- **Report** on the results. Refer to **Guidelines in Reporting Audit Results to Clinical Audit Division.**

CAD Guidelines on Reporting Audit Results

Audit reports need to be assessed by the Clinical Audit Division for verification before you may claim CPD points and be issued a certificate to indicate completion. The accepted audits will be regularly compiled and published for department distribution.

- **Document submission**. Submission to the Clinical Audit Division are best submitted via e-mail in doc/docx to angjess@yahoo.com ; grace.ang@moh.gov.bn; wardati.yakob @moh.gov.bn; and jacsenyum@gmail.com.

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- A cover letter should accompany each submission stating the name, clinic and contact details of the lead and co-auditors. **Please ensure that all named co-auditors have read and approved the report in its entirety before submission.**
- The completed audit is expected to broadly follow the following headings :

⇒ **COVER PAGE :** To include project title, unit/ department, authors and date of submission.

⇒ **TITLE :** This should be succinct and an accurate reflection of the audit.

⇒ **INTRODUCTION :** This include the rationale and why there is a need to undertake the audit.

⇒ **AIMS :** This is usually reflective of the title.

⇒ **OBJECTIVES :** If appropriate, you may include a specific list of objectives for your audit.

⇒ **STANDARD(S) :** Should be quoted if available. If unavailable, your standards should be based on current best practices.

⇒ **MATERIALS AND METHODS/METHODOLOGY :** This should provide a clear explanation of the audit process for readers to understand. It should include the audit period, sample size, sample selection, data to be collected, any relevant definitions, template of the data collection sheet, any inclusion or exclusion criteria as well as the method of data analysis.

⇒ **RESULTS :** This should logically and systematically report your findings according to your stated aims and objectives. Please avoid simply repeating findings shown by any graphs/charts used, however clarification or explanation can be given if necessary.
Any **Graphs or charts**, included should be in Excel 2010 or earlier and have a concise accompanying legend e.g. Figure 1. Number of mouthguards. Graphs should be quickly and easily understood, used to provide clarity to the results if description by text would be overly complicated. Ideally, limit graphs and charts to 2-3 per report.
Tables should also be in Word 2010 or an earlier format and similar recommendations as that for graphs and charts apply.

⇒ **DISCUSSION :** If appropriate you should discuss the strengths and weaknesses of your audit. Discuss the results, reasons for the results, with , where available, reference to other results published/reported elsewhere. If you have failed to meet the standard set, identify reasons for this.

⇒ **CONCLUSIONS :** This provides a summary of your findings.

⇒ **RECOMMENDATIONS/PLAN :**
- If you **meet the standard set**, congratulations.
- If you **failed to meet the standards** set, suggest plans to be taken to improve and/or change the practice as necessary. Decide when you will implement these changes.
- **As part of the audit cycle**, irrespective of whether you meet or do not meet the standard set, please plan a re-audit after a suitable time interval to check that you are achieving the set standard, or, you may decide to set a higher (but still realistic/reasonable) standard to achieve.

⇒ **ACKNOWLEDGEMENTS :** If applicable.

⇒ **REFERENCES :** Authors are responsible for accuracy and appropriateness of references. Reference are not compulsory but should be used if appropriate.
- There should not be more than 15 references.
- In the text, reference are by author and year of publication e.g. ...standards (Edwards, 2010)
- At the end of the text, the list of References are listed alphabetically in the Havard format e.g. Rosenbaum C.H. and Barton D.H. (1978). Use of a continuing health history in dental practice: a survey. *American Society of Dentistry for Children Journal of Dentistry for Children.* 45(**5**):371-375

Note:
(1) It is best to submit your completed audit report as early as possible. If you wish to claim CPD points for your audit towards the end of the CPD year, please be aware that CAD members require time to go through your report. Should your initial draft require amendments or corrections, the final approval for CPD points claim may fall AFTER the CPD cycle, i.e. it can be claimed only for the next CPD cycle.

(2)After the final approval, please re-submit the revised report by email and provide a bound hard copy.

AUDIT REPORT 1:

Audit on completeness of medical history of patient notes in the orthodontic unit, National Dental Centre– preliminary data.

Dr. Jacqueline Kamaluddin, DSA Hilyati Amalini Jakeria, DSA Norisma Bahar

Background

- There is a 10-15% incidence of chronic, long term medical conditions in adolescents aged under 16 (Weiland et al, 1992).
- Completion of a patients' medical history should be carried out and recorded at the initial appointment. (Machen, 1991) and reviewed at every subsequent appointment. (BDA advice sheet A12, 2003).
- An up-to-date medical history form will help protect the staff, clinician and most importantly the patient (Rosenbaum and Barton, 1978) and is an integral part of the delivery of high quality patient care as it will also influence the possible treatment options.
- As stated in the General Dental Council (UK) Standards' for Dental Professionals 2005 document section 1.4, it is the responsibility of the clinician to make and keep accurate and complete patient records including medical history during the period patients are treated.
- There is currently no data available on the current status of medical history completeness of the Orthodontic Unit.

Aims

- To determine if the medical history of patients currently treated in the Orthodontic Unit, National Dental Centre are completed and updated as per the standard.
- To introduce any necessary changes as required.

Methods

- Retrospective study .
- Three investigators: audit capture sheet was discussed beforehand to ensure data is collected and interpreted with the same methodology.
- Sample group: Patients currently undergoing treatment in the Orthodontic Unit.
- Sample size: 30 sets of random patient notes from the 5 clinicians working in the Unit.
- Conducted during the month of September 2011.
- Data capture sheet used to collect the information.
- Following information to be collected from patient notes:
    a) Absence or Presence of medical history
    b) Presence of a medical history sheet
    c) Medical History can be verified to belong to the patient. (Patients identification present on current form/name written on card with medical history)
    d) All categories are completed on the medical history sheet
    e) Allergies written or none stated
    f) Medication taken by patient recorded or none stated
    g) Signed by clinician
    h) Name of clinician printed
    i) Medical history is dated
    j) Any medical history relevant to dentistry is recorded
    k) Legibility of medical history
    l) Medical history updated within 1 year of last record
- Data was analysed with Microsoft Excel.

Standards

- All (100%) patients currently under the care of the Orthodontic Unit should have a completed and updated medical history.
- All (100%) of patients should have their allergies clearly written or no known allergies stated.

Results (refer to table 1)

No of random case notes examined	150
Categories	**%**
Use of a Medical History form	39
Patient details on form	39
All categories asked / completed	39
Allergies written	21
Medication taken written	35
Signed by clinician	30
Dated	59
Medical history relevant to dentistry noted	31
Written clearly	57
Medical History noted in treatment card	71
Complete history written	28
Updated after 1 year	17
Complete lack of medical history	12

Table 1:Percentages of patient notes with medical history audit parameters marked as present.

Discussion

- The 100% gold standard is currently not being met.
- Results are not a true representation of clinicians standards of care.
- Some clinicians were recording a medical history on a standard medical history sheet (39%) whilst some were writing them down in treatment cards (71%). From the numbers, it can be concluded that some clinicians were noting the medical history doubly- both as part of the form and also in the treatment notes. This could be attributed to the difference in times from when the patient filled out the medical history form and to when they were seen for treatment at the orthodontic clinic.
- 12% of patients did not have their medical history noted in their treatment cards.
- One of the weaker categories was the update of medical histories within the last year- only 17% of patients had their medical history updated within the last year.
- Only 21% of patient notes stated whether the patient had an allergy.
  Where it was noted that the patient had an allergy or on a medication relevant to dentistry, this was not noted on the front of the card to alert other clinicians. This was seen in all the patient notes with an allergy relevant to dentistry.
- For those using the medical history form, not all categories were relevant to patients in the Orthodontic Unit. This may in part be explained by the fact that as there are very few medical conditions that exclude patients from receiving orthodontic treatment, so most clinicians do not actively write down a medical history.

Conclusion

- At present the 100% gold standard has not been met within the Orthodontic Unit, National Dental Centre .
- Reinforcement and reminding of clinicians to maintain high standards of patient records with regards to medical history is required.
- Following this audit cycle, concern was raised as to whether this standard was practically attainable.
- We believe that, given the importance of good clinical records for every patient, it is a worthwhile endeavour. Setting the highest standard will continually challenge the clinician to achieve better results.

Recommendations

- Results from this audit will be presented and disseminated at the next orthodontic unit meeting.
- Verbal and written (emails) will be distributed in ensuring and improving completion of medical history forms.
- The use of a medical history sheet will help standardise the way the medical history is recorded.
- Medical histories should be dated and signed if not at each visit, at least yearly.
- Guidance on completion of medical histories can be obtained from the British Orthodontic Society 'Medical History Guidance' (2005) and General Dental Council (UK) on Standards' for Professionals advice sheet (2005).
- A re-audit is to be performed again in a years' time as part of the audit cycle. Similar audit parameters will be checked with the addition of the presence of the new medical history sheet.

References

British Dental Association (2003) Advice Sheet A12- Infection Control in Dentistry

British Orthodontic Society (2005) Advice sheet 21- Medical History Guidance

General Dental Council (2005) Standards' for Dental Professionals

Machen D. E. (1991) Legal Aspects of orthodontic practice: risk management concepts. The patient requiring antibiotic prophylaxis. *American Journal of Orthodontics and Dentofacial Orthopaedics* 100 (**2):**190-191

Rosenbaum C. H. and Barton D. H. (1978) Use of a continuing health history in dental practice: a survey. *American Society of Dentistry for Children Journal of Dentistry for Children* 45 (**5**):371-375

Weiland S.K., Pless I. B. and Rognmann K. J. (1992) Chronic illness and mental health problems in paediatric practice: Results from a survey of primary health care providers. *Pediatrics* 89:445-449

AUDIT REPORT 2:

Audit of waiting time from referral to initiation of treatment for paediatric patients requiring dental treatment under general anaesthesia in Suri Seri Begawan Hospital

Dr. Hajah Wardati Sahimin Haji Yakob

Background

There may be occasion when dental treatment for children have to be performed under general anaesthesia. These include (1)special needs children, (2)very young but healthy children who cannot cooperate in the dental chair, who require single or multiple extractions and (3)children requiring surgical procedures such as surgical exposure of teeth or surgical drainage of an acute infected swelling. (UK National Clinical Guidelines in Paediatric Dentistry, 2008)

Prior to February 2011, dental treatment under general anaesthesia for paediatric patients in Suri Seri Begawan (SSB) Hospital was provided by an oral surgeon on an as-needed basis. From February 2011, a paediatric dentist started full-time paediatric dental service which include a regular general anaesthesia service, twice a month (Wednesday of week 1 and week 3). Each general anaesthesia session can accommodate on average three patients, depending on the type and length of procedure to be performed. As a portable cutting unit was not available for general anaesthesia procedures, patients requiring dental restorative work are referred to Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital for management.

Since the start of the paediatric dental service in SSB Hospital, there has been an increase in referrals from both peripheral government dental clinics as well as private dental clinics in Belait district. The increase in the number of referrals raised the need to monitor the referral cases requiring treatment under general anaesthesia and the waiting time from referral to initiation of treatment. Where the waiting time is long, it may have a negative impact on the patient's oral health and cause unnecessary worry or uncertainty to patients and parents.

Aim

The audit was carried out to assess the waiting time from referral to initiation of treatment for paediatric patients referred to SSB Hospital for dental treatment under general anaesthesia.

Initiation to treatment is defined as either a) the date of general anaesthesia, if the treatment is carried out in SSB Hospital or b) the date of the consultation appointment in RIPAS Hospital, if the treatment also involves restorative work (requires use of the portable cutting unit).

Standard

Currently, Brunei has no available standard on the maximum waiting time from referral to treatment. The United Kingdom National Health Service (NHS) target waiting time of 18 weeks (126 days) from general practitioner referral to initiation of treatment is used as the gold standard for the purpose of this audit (Department of Health document, 2005).

Methods

All patients who were referred for dental treatment under general anaesthesia to SSB Hospital during the three month period from 1st March 2011 to 31st May 2011 were included in this audit. Data were collected prospectively using a proforma, after the patients' consultation appointment.

Information including patient's demographic data, source and date of referral, date of first consultation appointment, reasons for referral and proposed date of general anaesthesia or date of referral to RIPAS Hospital were recorded.

Data were analysed using Microsoft Excel 2007.

Results

Sixteen patients were referred for treatment under general anaesthesia during the three month period. The majority (68.8%) were aged four years and below. Only three patients had underlying medical problems. The source of referrals is shown in the graph below (figure 1).

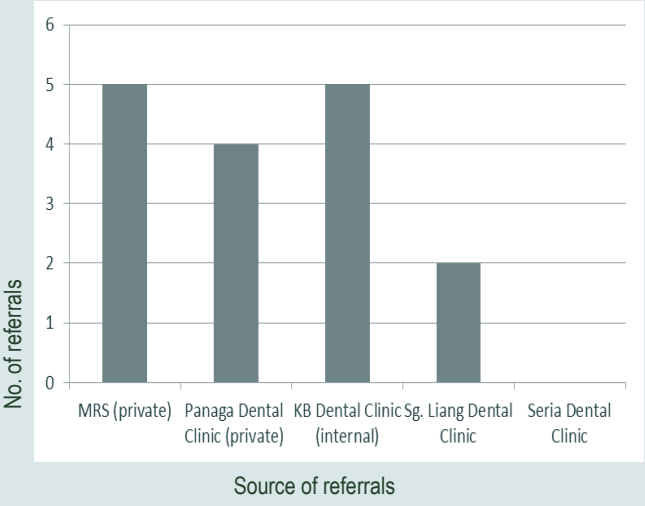

Figure1: Source of referrals of patients for dental treatment under general anaesthesia in SSB Hospital (March-May 2011)

The reasons for referral as stated in the referral letter are shown in Table 2.

Majority of these patients had more than one sign or symptom of acute dental problem.

Table 2: Reasons for referrals

	Pain	Swelling	Infection	Multiple caries	Uncooperative	Other
Patient 1	√			√		
Patient 2	√	√	√			
Patient 3	√	√	√			
Patient 4				√		
Patient 5			√	√		
Patient 6	√	√	√			
Patient 7				√		
Patient 8	√	√				√
Patient 9	√	√			√	
Patient 10	√		√			
Patient 11	√		√			
Patient 12		√	√			
Patient 13	√	√		√		√
Patient 14			√			
Patient 15	√	√				
Patient 16	√	√		√		

The waiting time from referral date to first consultation appointment ranged from 0 to 17 days, with an average of 9.93 days. The range of waiting time from consultation appointment to proposed date of general anaesthesia carried out in SSB Hospital was from 2 to 44 days, with an average of 21 days. The total waiting time from referral date to general anaesthesia for patients who had treatment carried out in this hospital was between 2 to 50 days, with an average of 30.9 days. All patients were given general anaesthesia appointment date within the gold standard waiting time.

Four patients who also required dental restorative work under general anaesthesia were referred to RIPAS Hospital. They were given consultation appointment in RIPAS Hospital between 3 to 16 days of their referral date. The total waiting time from their first referral to SSB Hospital to initiation of treatment, in this case, consultation appointment in RIPAS Hospital was between 8 to 28 days. All patients were given their consultation appointment within the gold standard waiting time. No follow up was attempted for their subsequent general anaesthesia appointment.

Discussion

The audit had some limitations. The sample size of sixteen was relatively small. This is probably because the service had only been started when the audit project was carried out. The duration of the audit could have been increased to improve the sample size. Secondly, the audit was carried out in Suri Seri Begawan Hospital, thus the results cannot be extrapolated to other centres. Finally, the gold standard was adopted from the United Kingdom National Health Services and may not be applicable to Brunei due to the differences in the size of population and the healthcare system. However, there is currently no other international or national standard available. The preliminary findings from this audit can be used in future re-audit as the gold standard.

In this audit, one patient waited for only 2 days from referral to treatment. This was because it was an urgent referral and the patient was seen on the same day. A general anaesthesia slot was available in that week due to cancellation of another patient. This allowed the referred patient to be treated very quickly. Two patients waited 50 days prior to receiving treatment because the paediatric dentist was on leave for more than two weeks, which included the day of scheduled general anaesthesia session.

Four out of 16 patients (25%) were referred to RIPAS Hospital as they also required restorative dental work under general anaesthesia. This finding indicates the urgent need of a portable cutting unit in Suri Seri Begawan Hospital.

This audit found that the waiting time from referral to general anaesthesia appointment date for patients who had their general anaesthesia scheduled in SSB Hospital, was between 2 to 50 days (less than 8 weeks). Thus, no patient waited beyond the gold standard of 18 weeks. The audit also found that the waiting time from referral to consultation appointment in RIPAS for patients who also required restorative dental treatments was between 8 to 28 days, which is also within the gold standard.

Conclusion

The waiting time from referral to initiation of treatment for paediatric patients referred between March to May 2011 to SSB Hospital for dental treatment under general anaesthesia was within the gold standard.

Recommendations

- Rather than blocking off an Operating Theatre (OT) list when taking annual leave that falls on week 1 or 3, it is recommended to liaise with the officer in charge of the OT to swap theatre list to a different week (week 2, 4 or 5). Another alternative is to arrange for another operator to cover the list.
- A portable cutting unit should be made available in SSB Hospital so that all patients can be treated in this hospital.
- Re-audit is important to ensure the waiting time of patients from referral to initiation of treatment is maintained within the standard.

Re-audit plan

A re-audit is to be carried out once a portable cutting unit is made available. The audit period should be extended to achieve a sample size of at least 30 patients.

References

Department of Health (2005). Commissioning an 18 week patient pathway. Proposed principles and definitions: A discussion document. Viewed 23rd November, 2011, http://www.dh.gov.uk

UK National Clinical Guidelines in Paediatric Dentistry (2008). Guideline for the Use of General Anaesthesia in Paediatric Dentistry. Viewed 23rd November, 2011, http://www.rcseng.ac.uk

AUDIT REPORT 3:

Completion of the First- stage consent forms prior to treatment under General Anaesthesia in the Paediatric Dental Services: A Clinical Audit

Background

It is generally legal and ethical that **valid consent** be obtained before providing treatment for a person. For the consent to be **valid**, the patient must: (1) be competent to take that particular decision; (2) have received sufficient information to take it; and(3) give the consent voluntarily (Department of Health, 2009).

Clear documentation of the patient's agreement and the discussion which led to that agreement are crucial, especially in cases involving significant risk procedures such as dental extraction and treatment under general anaesthesia.

It is rarely a legal requirement to seek written consent, but it is a good practice to do so in certain circumstances such as: (1) for complex treatments or procedures or if they involve significant risks (significant adverse outcome, side-effects or complications), (2) If the procedure involves general/regional anaesthesia or sedation, (3) if providing clinical care is not the primary purpose of the procedure, (4) if there may be significant consequences for the patient's employment, social or personal life, (5) if the procedure is part of a project or research study. (Department of Health, 2001)

When seeking written consent for a procedure that carries significant risks, such as general anaesthesia, the health professionals must take into account whether the patient has had sufficient chance to absorb and understand the information given to help them make the appropriate decision.

For elective procedures such as most dental treatment under general anesthesia, treatment options and their risks and benefits should be discussed well in advance of the actual procedure being carried out. The seeking and giving of consent should, therefore, be regarded as a process rather than a one-off event. Hence, the consent process can be divided into **two stages**:

(1) **First stage of consent**: the provision of information, discussion of options and initial decision
(2) **Second stage of consent**: confirmation that the patient still wants to go ahead as planned.

(Department of Health, 2001)

In the United Kingdom, consent forms are divided into two parts to allow health professionals to document both stages of the consent process. The first section of the form allows documentation of the first stage of consent process. This includes:

- Identification of the proposed procedure
- The intended benefits & risks involved
- Any extra procedures
- Leaflet/tape provided to patient
- Whether the procedure will involve general/regional anaesthesia, local anaesthesia or sedation.

The healthcare professional responsible for explaining to the patient the above information will have to sign this section and a copy of this section is to be given to the patient.

The second part of the form is the second stage of consent. In this section, the patient/parent will sign if they consented for treatment. The health professional will also confirm the consent by signing this section.

In Brunei Government Hospitals, the current practice for significant procedures such as general anaesthesia involves the patient or his/her next of kin to sign a standard consent form prior to the procedure. Although the form state that the patient has been informed about the risks and benefits associated with the procedure, it does not specify the type of risks and benefits that had been explained. Unless the healthcare professionals document the discussion of treatment options and the associated risks and benefits in the patients' medical records, the standard consent form does not provide sufficient evidence that these information had been given to the patients.

An agreement was reached among specialists and senior dental officers working in the Paediatric Dental Services, Department of Dental Services during a meeting on 9th February, 2011 to adopt UK's two-stage consent process for procedures carried out under general anaesthesia. A first stage consent form was designed similar to UK's consent form. A section was added to this form to allow patient/parent to sign as evidence that they have been given the information stated in the form. Similar to the practice in UK hospitals, the first stage consent form is to be used during consultation appointments for patients requiring significant procedures such as general anesthesia. A copy of the first stage consent form is to be given to the patient or parent for their record. The Ministry of Health standard consent form, which is similar to the second part of UK's two stage consent form, can be used as the second stage consent form. This form is to be signed by patient/parent prior to the treatment being carried out. Since the first stage consent form was new to some officers in the Paediatric Dental Unit, its implementation would require them to incorporate it into their routine clinical practice.

Aims

An audit was carried out to (1) evaluate the compliance of Paediatric dentists in using and completing the first stage consent form for procedures involving general anaesthesia, (2) identify shortcomings in the existing First-stage consent form and allow appropriate amendments to be made and (3) facilitate local improvement of clinical care.

Standard

Specific written consent should be obtained at the time of treatment planning and updated on the day of operation to provide sufficient time for the patient/parent to comprehend the information given and make a decision (UK National Clinical Guidelines in Paediatric Dentistry, 2008).
Based on this, the standard for this audit is 100% compliance of using and completing the first stage consent form for treatment planned to be carried out under general anaesthesia.

Methods

A proforma was designed to aid data collection.
All paediatric patients, who undergo dental treatment under general anaesthesia in both Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital and Suri Seri Begawan (SSB) Hospital during the months of March, April and May,2011 were included. The sample was identified from the Operation Theatre (OT) lists prepared by paediatric dental clinics in RIPAS and SSB Hospitals. The patients' notes, where the first stage consent forms are kept, were then extracted. Copies of all first stage consent forms were then obtained. The audit proforma was then used to collect the appropriate data, retrospectively which was analysed using Microsoft Excel® 2007.

Results

In RIPAS Hospital, the copies of the forms (obtained using carbon paper) were found in the patients' case notes and hence, it was assumed that these patients were given the original forms. For cases carried out in SSB Hosptial, the original first stage consent forms were kept in the patients' notes and the patients had been given the photocopy of the forms instead.

A total of 62 paediatric patients underwent dental treatment under general anaesthesia in RIPAS and SSB Hospitals during the months of March, April and May, 2011.Out of 62, eight of the case notes could not be traced, and hence the first stage consent forms could not be retrieved, so these cases were excluded from the audit.

15 out of 54 (27.8%) cases did not have first stage consent forms. The consultation appointments for these cases, however, had been done before the implementation of the first stage consent form. Thus, these cases were also excluded from the sample. Only 39 patient's notes were included in the analysis; 22 were from RIPAS Hospital and 17 were from SSB Hospital.

The main findings of this audit are shown in the table below:

Table 1: Percentages of cases which completed different sections of the first stage consent forms

Items		% of cases, which completed this part of the form
Patient's information	Name	100%
	Date of birth	100%
	Patient's identification no. either mother's IC or MRN	100%
Proposed dental procedure	Type of anaesthesia	100%
	Type of dental procedures	100%
lintended benefits		100%
Significant or serious occurring risks	For dental procedures	100%
	For general anaesthesia	100%
Any other procedures which may become necessary during procedures		100%
Name of leaflet/tape that has been provided		94.9%
Whether the procedure will involve general and/or regional anaesthesia, local anaesthesia or sedation		100%
Name, signature, date and job title of the health professional		89.7%
Name of parent, his/her signature, date and relationship to child		94.9%
A copy of the form has been given to parent/patient (circled yes)		84.6%

Discussion

All of the cases included have had the First-stage consent form filled. However, 9 of the 39 forms (23.1%) were not filled in completely.

The name and job designation of the clinician were missing in 10.3% of the forms. This was because some clinicians used custom rubber stamps to fill in this section. The copies of the forms, therefore, were not filled in since the details from the rubber stamp could not be captured by the carbon copy paper.

In 5.1% of the cases, the signature of the parent and relationship to child as well as the evidence that a copy of the form has been given to the parent were not documented. This is partly contributed by the fact that Paediatric Dentists in RIPAS Hospital gave the original forms to patients and kept the copy in the patients' records instead. The carbon copy paper used to duplicate the content of the forms probably did not cover the bottom part of some of these forms. Thus, the content of the last part of the forms were not transferred completely to the copy page.

The Paediatric Dental Clinic in RIPAS Hospital had made some changes to the format of the first stage consent form. While the main content of the form remains identical to the original form, options and tick boxes had been added to make it easier for health professionals to fill it in, which may account for the high percentage of completeness of filling the First-stage consent form in RIPAS Hospital. This may make it easier for clinicians not to miss out on important details. The clinicians' awareness of the importance of first stage consent forms as part of medico-legal documents may also contribute to the high rate of utilization of the form.

Noteworthy, eight cases were not included and this is a potential source of bias, since the first stage consent form may not have been used in these cases. Another potential source of bias was the fact that some clinicians were aware of the audit since the case notes were collected monthly. This may have influenced them to ensure that they fill the forms completely.

Recommendations

- To have only one type of first stage consent form to ensure uniformity. The form should be easy to use, can be easily understood by patient and should be universal, i.e. it can be used for any type of procedures which carry significant risk in any clinic, not just in the Paediatric Dental Unit.
- To print the first stage consent forms with carbon-less copy paper to avoid incomplete transferance of the contents onto the copy page. The use of carbon-less copy paper will also eliminate the time required to photocopy the forms for the patient's copy.
- To ensure that clinician's name and job designation are documented either by writing or using custom rubber stamp on both the original and patient's copy of the forms.

- To increase awareness among clinicians to keep the original first stage consent forms with the case notes and to provide patients with the copy instead, as indicated at the bottom of the consent form.
- To encourage other health professionals carrying out significant risk procedures to use first stage consent forms to allow a more proper and complete documentation of their first stage of consent process.

Re- audit plan

The Paediatric Dental Unit is already planning to print the first stage consent forms onto carbon-less papers. A re-audit is to be carried out once the new forms are used in the Paediatric Dental Unit. This is essential to monitor the compliance of using the first stage consent forms and thus, maintain the standard of our clinical practice in par with the international standard. Specialists and senior dental officers in this unit should not be informed when the audit is to be carried out to avoid them only using the forms during this period.

Conclusion

First stage consent forms were used in all cases included in this audit. However, in more than half of the cases, the original forms were given to the patients instead. This may have contributed to the incompleteness of the forms in 23.1% of the cases as some contents of the forms failed to be transferred by the carbon paper to the copy page. The original forms should be kept in the notes , the patient given the copy ,and the use of carbon-less copy paper could ensure that all contents written on the original forms are transferred to the copy page.

References

Department of Health (2001). Good practice in consent implementation guide: consent to examination or treatment (first edition).

Department of Health (2009). Reference guide to consent for examination or treatment (second edition).

UK National Clinical Guidelines in Paediatric Dentistry (2008). Guidelines for the use of General Anaesthesia (GA) in Paediatric Dentistry.

Audit reports to be published in the next issue

- **Audit of patient failure to attend orthodontic appointments and clinical time lost as a consequence at NDC and Seria during January 2012** by Dr. Grace Ang, Dr. Uday K Umesan, Dr. Jacqueline Kamaluddin, Dr. Siti Waznah Hj. Abd. Wahab, Dk. Dr. Hjh. Noorsuhada Hj. Ismail.
- **Waiting time of patients attending dental outpatient service in NDC during peak and off peak periods in June 2012** by Dr. Hjh. Noryagandi Hj. Abu Bakar, Dr. Hj. Amirul Rizan Hj. Mohamed.
- **Audit on the recording of root canal working length measurement and the reports on radiographs taken during endodontic treatment** by Dr. Hj. Alias Embong, Dr. Malissa Abdullah Sikun, Dr. Leela H Ambady.
- **Audit of clinical waste (except amalgam waste) management in dental clinics** by Dr. Hjh. Wardati Sahimin Hj. Yakob, Dr. Farha Hanina Maidi, SDN Sit Noor Haidah Ahmad.
- **An audit on prescribing practices by dentists at the National Dental Centre, Berakas** by Dr. Norhidayati Hj. Sulong, Dr. Hj. Amirul Rizan Hj. Mohamed, Dr. Sylviana Hj. Moris.

Other audit projects currently in progress

No.	Title	Auditors
1	Audit of quality of information and content in referral letters from general dental practitioners to orthodontists in Brunei Muara District	**Dr. Uday K Umesan** Dr. Chua Kui Lay
2	An audit of the documentation of history of traumatic dental injuries at presentation by Paediatric Dentists in Brunei Darussalam	**Dr. MaryAnn DSouza** Dr. Sharon Han
3	Management of supernumerary teeth in children referred to Specialist Paediatric Dental Clinics: a clinical audit	**Dr. Amalina Kamis** Dr. Hjh. Wardati Sahimin Hj. Yakob
4	Retrospective audit on the incidence of lingual nerve injury following mandibular third molar surgery in SSBH dental clinic	**Dr. Joseph Maxim**
5	An audit of the quality of clinical dental records of Dental Officers in Primary Oral Care Services based in National Dental Centre, Berakas.	**Dr. Haji Majidi Haji Bakar** Dr. Mary Cheong Dr. Hj. Amirul Rizan Hj. Mohamed
6	Audit on the rolling toothpaste programme	**Dr. Sarah Haji Sani** Dr. Mary Cheong Dr. Hj. Amirul Rizan Hj. Mohamed
7	Audit of the quality of secondary impressions for removable dental prostheses received by dental laboratory in NDC	**Amp. Dr. Siti Nur Hanisah Amp. Dr. Hj. Brahim** Dr. Kamsiah Hj. Kasah Dr. Hj. Amirul Rizan Hj. Mohamed

Need help?

Please do not hesitate to contact any of the CAD members if you require further information or advice on clinical audit.

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