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Virginia Dental Journal

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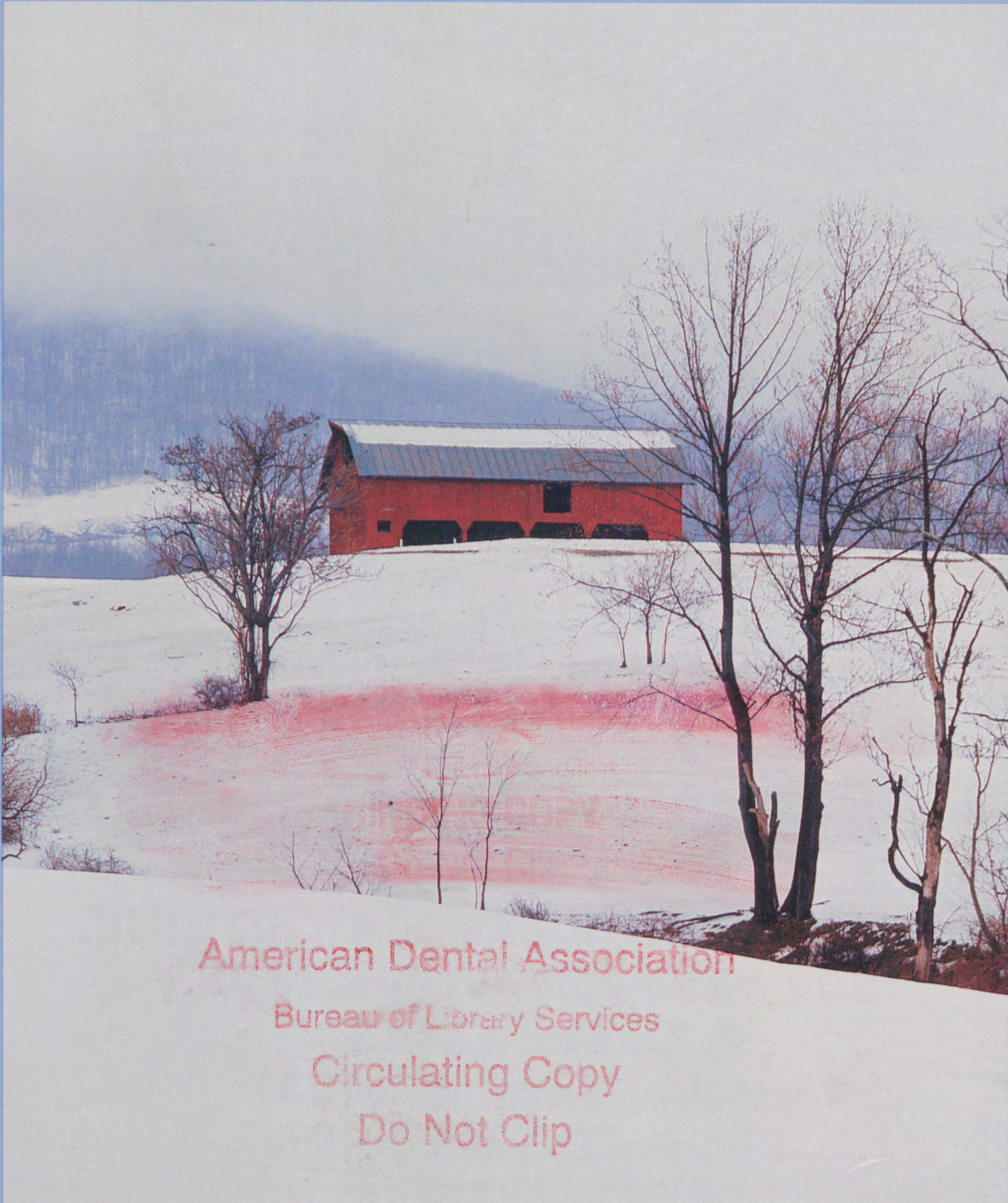
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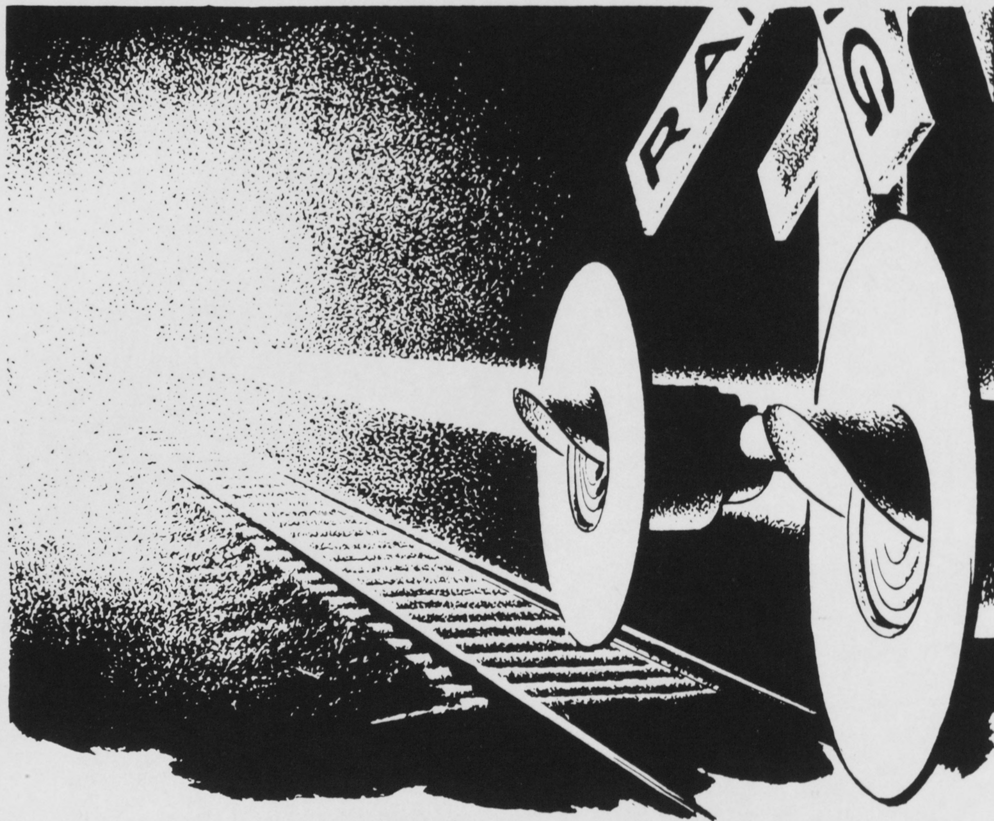

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COVER: *Winter comes to the Shenandoah Valley of Virginia.*

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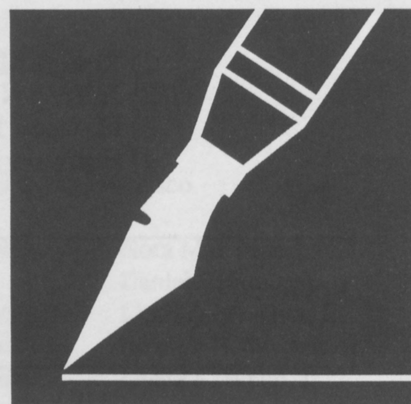

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Editorial

In June of 1993, I informed the president of the Virginia Dental Association of my intention to leave the editorship of this *Journal* effective with this January-March issue, 1994. In my view, the leadership of the Virginia Dental Association has demonstrated excellent judgment in selecting Dr. Francis F. Carr, Jr. as your new editor. I am confident you will be most pleased with Fred's literary and editorial skills. He will be an outstanding editor.

During my years as your editor, I have enjoyed great support from my colleagues in the VDA, from my office staff and especially from my wife Betty Ann, who has served so well as typist, critic and motivator. I would have been lost without her.

The faculty of our dental school has been a delight to work with. Their cooperation, advice and encouragement have been integral to whatever success this publication has had. At considerable sacrifice, they have submitted excellent articles that were cutting edge, clearly written and relevant to daily practice. They continue to represent dental education with admirable professionalism.

Pat Watkins and the Virginia Dental Association Central Office Staff deserve far more credit than they receive for their invaluable help. Pat's wisdom and experience, coupled with her prudence and intelligence, always steered this *Journal* in the right direction. I shall dearly miss working with Pat and her staff.

I have learned a great deal during my tenure as editor. Private practice and academics continue to mature and change. The vehicle to keep abreast of that change is the dental literature. I encourage each of us to read—selectively, critically, and voraciously.

Being your editor has always been a source of pride for me and I leave with an abundance of good memories. Perhaps most importantly, it has left me with the firm conviction that the daily practitioner in Virginia is competent, caring and dedicated to ongoing professional growth.

I am deeply appreciative of the privilege of having served you as your editor.

Richard D. Wilson

Letters to the Editor

Dear Dr. Wilson:

I respect the work you did as the editor of the *Virginia Dental Journal,* and I have agreed with many of your editorials. However, I strongly disagree with your editorial on Conflict of Interest in the October/December 1993 issue. I hope as colleagues we can agree to disagree in collegiate manner.

This is *not* the opinion of the Dental School; this is the opinion of *one* faculty member who has also spent a great deal of time in full-time private practice. However, the viewpoints expressed are not unique only to me.

A while back you sent me a letter complimenting me on an article published in the *Journal of Periodontology*. I regret that I did not thank you sooner for the compliments, but I would like to take this opportunity to thank you.

Sincerely,

John C. Gunsolley, DDS, MS
Associate Professor
Department of Periodontics

(Editor's note: Dr. Gunsolley's response to the editorial follows.)

Conflict of Interest - A Problem for All Members of the Virginia Board of Dentistry

Raising the issue of conflict of interest of State Board members is appropriate; however, the recent editorial in the *Virginia Dental Journal* only raised the issue for a Board member from a dental school. I have a great deal of respect for the individuals on the State Board, and none of my comments are intended to be negative towards past or present Board members. However, questions of conflict should be discussed on the basis of what constitutes a conflict of interest. Board members who engage in private practice also have potential conflicts of interest. Is it in the economic interest of those in private practice to limit the supply of dentists? As an example, the State law allows license by credentials. However, the Board has refused to license in this manner. Could this be to reduce the number of dentists in the State of Virginia, thus reducing competition? Is it also in a private practitioner's best economic interest to have a higher failure rate, reducing the number of new dentists? The editorial raises the question of the appropriateness of a faculty member evaluating new Board candidates he or she has taught on the basis of a conflict of interest. Is this conflict any less serious than the economic conflict experienced by a private practitioner by an oversupply of dentists? Also, keep in mind that Virginia is in a regional Board in which members of the Virginia Board examine candidates at other schools; thus, if the Board member is in conflict, he or she can serve an equivalent amount of time at other examination sites. Therefore, the utility of a faculty member is as great as any other Board member, and conflict of interest questions are different for a faculty member on a State Board but no more serious than the conflicts of members from private practice.

The editorial discusses the appointment of faculty in other states to Boards. While the editorial acknowledges that some states "do well with this arrangement," it only discusses the "increasing divisiveness between the academic and the private practices communities" in other states. The comments appear to be the opinion of the editor. Would not a more rigorous evaluation be more appropriate? How many states have faculty members on their Boards? How many have generally positive and generally negative experiences? To expand the discussion of this issue, it would be useful to have opinions and data from individuals in those states.

The editorial states that "Virginia has always cherished a tradition of disallowing faculty members from serving on our board." I would agree that the change of this "tradition" for change sake is not necessarily meritorious. However, *status quo* for the sake of "tradition" is no more meritorious. The appointment of a faculty member on the State Board of Dentistry should be judged on its merits, not past policy. This policy may, in fact, not be as generally cherished by as many individuals as implied in the editorial.

The potentially negative aspects of a faculty member on a state dental board have already been discussed in the editorial. On the other hand, there are many positive aspects and valuable insights that a faculty member can bring to a board. Design of examinations is a constant task in the academic setting, and a board member with experience in that area can be very useful to a licensing board. Faculty members are also more aware of general problems experienced by a testing site or candidates, and this input can be useful.

Would a faculty member have valuable insights for causes of the increased failure rates in the Southern Regional Testing Agency (an issue raised by the editorial)? Certainly one reason for Board failures is improperly

trained candidates. Could Board concerns on general deficiencies be better communicated to the dental school by a faculty member? In a time when the Southern Regional Testing Agency has failure rates this summer as high as 75% in some states, it is extremely important to understand why. Are 75% of dental students in these states improperly trained? If so, what needs to be done? How much of the increase in failure rates is due to factors having nothing to do with clinical competence? Examination factors such as: a decreasing pool of appropriate patients, insufficient time to complete a procedure due to increased examiner time (needed to protect the identity of the candidate) may be factors. Contrary to what is implied in the editorial, the relationship between the Board and the dental school can be rocky at times. Could not a Board member from the dental school improve these relationships?

Unfortunately, the editorial focused on only one task of the Virginia Board of Dentistry; that is, the examination of recent graduates. However, for other tasks of the Board, such as policy decisions and disciplinary actions, it is useful to have different perspectives that a faculty member of a dental school can bring. It should be remembered that there are ten members of the State Board; thus, ample input is available from practicing dentists.

I agree that the State Board should adhere to principles of conflict of interest. However, this principle is applicable to all members of the State Board. Additionally, as an individual who has spent half of his career in the treatment of patients and half his career training dental students, I believe a faculty member on the State Board is appropriate. Issues raised about conflict of interest exist whether an individual is on a dental school faculty or is in the private practice of dentistry. More importantly, a valuable insight can be obtained from a Board member who deals daily with the training of our future dentists. These additional insights are critical in today's times.

Dear Dick:

As I am sure you expected, your editorial on conflict of interest concerning a member of the dental faculty at MCV being appointed as a member of the Board of Dentistry has stimulated considerable discussion among the faculty.

First, I would like to point out that the school played no role in the Board appointment. As you know, the Governor makes the appointments and need not consult with anyone.

Secondly, you raise the issue of whether or not faculty membership on the Board is a real or perceived conflict of interest. I would submit that perception, like beauty, is in the eyes of the beholder. But, more importantly, to imply that the conflict of interest might be real in that the faculty/board member might be biased towards our students during board exams does two things. It impugns the integrity of an outstanding faculty, and it also denotes a fundamental lack of understanding of the board process. Board examinations are evaluated blindly in that the examiner does not know the identity of the candidates.

To imply that the Board appointment of a faculty member might jeopardize the rapport between the School of Dentistry and the Virginia Dental Association is to plant the seeds of distrust which is totally inappropriate. To even hint of an impropriety on behalf of the school, which had no input into the Governor's appointment, is unconscionable. Possibly your editorial, rather than being an editorial, should have been addressed in letter form to the Governor.

The School of Dentistry values its close relationship with the Virginia Dental Association and the Virginia Board of Dentistry, and we are committed to continuing the relationship of mutual trust and understanding.

I am sure you will be hearing from other members of the faculty. In the meantime, writing on behalf of the entire faculty, I remain

Sincerely yours,

Lindsay M. Hunt, DDS, PhD
Harry Lyons Professor and Dean

Editor's note: I stand by the editorial. -- R.D.W.

Dear Dick:

I just wanted to let you know how much I, and I assume the members of the Virginia Dental Association, appreciate your excellent Journal. Under your guidance the quality has improved to such a degree that even I read it every month.

All of the innovated things you have instigated, such as the extensive use of Associate editors, *et cetera, et cetera* have made it a better scientific forum.

So, thanks from us all (That's a royal "us."); we truly will miss your Editorship.

Sincerely,

Edward H. Radcliffe

As we have in the past, we are publishing another special issue of The Virginia Dental Journal. *This issue deals with children. Dr. Frank Farrington, Chair of the Pediatric Dentistry Department at Medical College of Virginia School of Dentistry, is the guest editor of this special issue. Frank deserves great credit for identifying and recruiting excellent authors, for applying his considerable expertise in guiding the obvious talents of these authors and for the resultant high quality of the articles.*

Much has been developing in this exquisitely sensitive arena. I prepare you to be dismayed the the disquieting data and descriptions that you will encounter, especially in the first article. Nevertheless, our changing world compels us to be informed. There is a great deal of good advice in this issue. I urge you to encourage your component to present the University of Washington videotape as suggested by Dr. Hunter. It provides an informative and balanced supplement to this issue.

Dr. Farrington and his fellow-authors deserve our highest praise and our warmest thanks.

RDW

Guest Editorial

We expect all children to experience a carefree time growing up, learning and exploring their world. Unfortunately, for many this is not reality. Abuse, neglect and a disregard for the lives of children are facts in this country and around the world. Abuse is an overt act of commission by a caretaker, either physical, emotional or sexual. Neglect is an act of omission or the failure to provide food, shelter, clothing, health care, safety needs, dental care and supervision. Child abuse and neglect are problems facing us all as health dare providers, parents and citizens of the Commonwealth. Although the true extent of the problem is unknown, more than 50,000 cases of child abuse are reported in Virginia each year and that number is growing. On investigations, twenty to 25 percent of these cases are considered to be founded and approximately 40 to 50 children die in Virginia each year as the direct result of abuse or neglect.

Not only has society become more concerned about how children are treated and more involved in their protection, but parents have also become concerned about how others treat their children. As health care providers, dentists are required by law to support suspected cases of abuse and neglect. At the same time, we must make sure that parents and guardians are well-informed about how children are treated in the dental environment. The Virginia Dental Association has made a commitment to aid in the continuing education of the dental community in the moral, ethical and legal responsibilities regarding child abuse and neglect. Virginia has become the first state to recognize officially the issue of child management in the dental office with the adoption of the *American Academy of Pediatric Dentistry Guidelines for Behavior Management* as guidelines in the Virginia Dental Practice Act.

In this special issue three topics are addressed: (1) What does the practitioner need to know about identifying and reporting child abuse or neglect? (2) What happens when a case is reported and how can the practitioner aid in the investigation? (3) What are the guidelines for managing the child patient in the dental office environment, and what are the practitioner's responsibilities in informing parents and guardians regarding all aspects of care being provided?

...over 50,000 cases of child abuse are reported in Virginia each year and that number is growing.

I hope that this special issue of *The Virginia Dental Journal* will serve as a guide for practitioners in carrying out their responsibility to protect our children and allay fears dentists might have as to what happens when we get involved. As practitioners concerned with providing the best care to our child patients, we also need to be award of the standards set for us in managing children in the dental environment.

Frank H. Farrington, DDS, MS

The Dental Professional's Responsibility in Identifying and Reporting Child Abuse

by Lisa Samaha Hunter, DDS

Dr. Hunter is a general dentist practicing in Newport News.

Background and Statistics

A contemporary bumper sticker reads, "A world of wanted children would make a world of difference." Insightful and true. In 1961 Henry Kempe, MD, published a paper on child abuse in the *Journal of the American Medical Association.* At that time it was estimated that 447 children in the United States were abused. By 1972 estimates reached 60,000 and by 1991, had escalated to 2.6 million. In this country alone, one child dies every four hours as a result of abuse. Nearly 50,000 reports of child abuse are filed in Virginia each year. Because of the secrecy of abuse, it may be that the above statistics represent only a small portion of the actual abuse cases occurring.

The continuing rise in child abuse estimates is due not only to the increased stress and violence in daily life, but also to society's increased recognition of the problem. As early as 1974, Virginia played a critical and visionary role in child abuse awareness, prevention and legislation with the passage of the Virginia Child Abuse and Neglect Act. It is considered one of the most progressive laws of its type in the country, and serves as a prototype for similar legislation in other states. The Virginia Department of Social Services contains a Child Protective Services (CPS) division charged with the emotional and physical protection of children.

The dentist's role in the recognition and reporting of child abuse cannot be overstated. Upwards of 65% of all physical abuse occurs in the head, neck and oral region, and such trauma accounts for more than 70% of the fatalities attributed to child abuse. As health care providers, dentists are *mandated* reporters. Medical personnel have been held criminally and/or financially liable for failure to report, in a timely manner, suspected cases of child abuse or neglect.

The dentist's role in the recognition and reporting of child abuse cannot be overstated.

The purpose of this article is to provide a comprehensive overview for dental professionals in the recognition, intervention and reporting of child abuse and neglect. The need for educating dentists on the subject of child abuse is supported by recent research which concluded that "with education, dentists were nearly five times as likely to identify and report cases of child abuse," compared with dentists who had not received formal training on the issue. The major barrier to reporting suspected cases is the dentist's lack of training; the secondary barrier seems to be confusion regarding who to contact, and how.

Definitions

A variety of definitions of child abuse exist; nearly all include physical abuse, physical neglect (including medical, dental, educational, safety and nutritional), sexual abuse and emotional abuse/neglect (Appendix I). In their workbook and videotape entitled, "Child Maltreatment: Implications for Dentistry," Peterson and Domoto choose to utilize the term "child maltreatment" in order to encompass both child abuse and child neglect. Child maltreatment is defined as "the injury, sexual abuse or exploitation, or negligent treatment of a child by any person, thereby endangering or harming the child's health, welfare or safety...Child maltreatment includes punishment which harms the child, either physically or psychologically, in any way. The terms child abuse and child maltreatment are used interchangeably throughout this article. In addition, since the majority of child abuse occurs at the hands of a parent, that term will be used to describe the perpetrator of abuse. However, an increasing number of abusers are nonfamilial caretakers.

The signs and symptoms of child maltreatment are apparent to those trained in detection. The dental practitioner has the added opportunity of also diagnosing dental disease. Many states, including Virginia, clearly comprehend that dental neglect must be considered one of the many facets of medical neglect. In Virginia, child neglect of any sort is considered a form of child abuse. Since dental neglect is encountered in dental practices where children are seen, several basic premises must be addressed. The American Academy of Pediatric Dentistry defines dental neglect as "the willful failure of a parent or guardian to seek and follow through with treatment necessary to ensure a level of oral health essential for adequate function and freedom from pain

and infection." Virginia law states that "in situations where there are no (financial) resources available and the condition is one of poverty, appropriate services may be provided but the parent/caretaker should not be determined to have been neglectful" (Appendix I). Legally, a case of dental neglect may be considered if the average non-professional can easily detect the presence of dental disease, or if the victim expresses a history or evidence of pain. Child neglect is also considered if the parent or guardian has been informed of potentially serious disease and refuses to pursue appropriate care for the child in an expedient manner. Therefore, every attempt should be made to communicate the magnitude of the dental need to the parent at the time of diagnosis. Concerned parents usually appreciate the dentist's attentiveness and begin to cooperate. Abusive parents may react defensively and may even choose to transfer the care of their child to another dental practitioner. It is often by transferring from one health care provider to another, or by visiting a variety of emergency rooms, that parents prevent the discovery of an abused child.

Examination and Recognition

If dental practitioners are not aware of the often subtle signs and symptoms of child maltreatment, the problem may not be detected. Therefore, an objective assessment should be made of every child at every visit, particularly as the extent and degree of child abuse typically escalates with time. Abuse is often triggered by stresses within a family such as problems related to job, finances and marital discord. It is often exacerbated by the incidence of substance abuse in the home and lack of social support in the family. Abuse can begin at any time in a child's life with the majority of all cases of abuse occurring in children under five years of age. The developmentally disabled child is especially at risk of abuse. Most importantly, child maltreatment crosses all socioeconomic, cultural and religious boundaries.

Abuse is often triggered by stresses within a family such as problems related to job, finances and marital discord.

In order to address the issue of child maltreatment with parents, a question about child abuse can be included on the child's medical history form or asked during the medical history review. An example would be, "Has your child ever been physically or sexually abused?" In addition, the interaction between parents and child should be observed. As early as 1981, Kittle *et al* recommended systematic methods for performing what is referred to as a "Child Abuse/ Child Neglect Examination," otherwise designated as a CA/ CN Exam. The entire dental staff should receive training on the issue of child abuse, preferably together (Table 1). The CA/CN examination should begin when the parents and child enter the office. Any unusual dynamics (such as threatening or belittling comments or discipline) should by noted and reported to the dentist. Attention should be paid to the child's overall stature relative to age, as well as physical signs of malnourishment such as fatigue, malaise and lusterless skin. The child's clothing should be appropriate for the weather, as a child may be overdressed in an attempt to conceal evidence of trauma. The child's gait should be noted, and any signs of limping or difficulty in walking questioned if not explained in the medical history. The incidence of parents who are overly vigilant should also be noted. They will often not let the child out of their sight nor will they allow the child to respond when questioned. Such behavior may represent abusive parents acting out of guilt and fear of being discovered. On the other hand, it is also important to note that present-day parents are very aware of the issue of abuse. Overly protective parents may simply be expressing apprehension related to how their child will be treated in the dental environment. In contrast to the overly protective parents are the uninterested and unresponsive. They may be equally suspect.

The child's overall demeanor is also critical to note, keeping in mind the often intimidating nature of any new experience for a child, particularly that of the dental setting. Abused children may themselves appear overly vigilant, or "display a 'frozen watchfulness'. Their eyes constantly scan the environment for danger...there is almost no eye contact. It is as if they think that by not looking someone in the eye, they make themselves invisible and therefore safe from attack." Apparent developmental delays and extremes in behavior should be noted. Examples might be the extremely passive and compliant child, the child who is unable to smile spontaneously, unable to make eye contact, and shows little overall responsiveness, or the child who is unable to cooperate and is overly aggressive or defiant. The overly affectionate, "eager to please" child may be a victim of abuse, particularly emotional

neglect. Any bizarre or unusual behavior should also cause concern., i.e., "child grabbed assistant's gloved hand and began to suck on the fingers; when asked not to, became physically aggressive and began using obscenities..." Certainly the previous situation could be indicative of a history of child sexual abuse.

Careful documentation cannot be overemphasized. In subtle cases of child abuse, there may be little reason to suspect child maltreatment at any one point in time. However, the cumulative record, well documented, may provide clues in the future if a suspicion arises. Abuse will usually become more frequent and more severe with time.

When suspicions arise, Kittle recommends a systematic, more specific observation of the child from "head to toe."Continuing the physical assessment, the head should be checked for symmetry and the condition of the scalp and hair should be observed. Look for the presence of lice, tufts of hair that have been lost, and soft, circumscribed, tender areas that may be indicative of hematomas. Examine the skin under the hair on the forehead and neck. Note any abnormalities of the ears, periorbital ecchymosis, scleral hemorrhage, ptosis, deviated gaze or unequal pupils. A possible sign of repeated trauma to the midface is the presence of nasal blood clots. Examine the face, neck and external throat for bruises, scars, abrasions, lacerations, ecchymoses to include suck marks, bite marks, burn marks, punctate marks, hand slap marks, gagging marks and electric cord or rope marks. It is also appropriate to examine for such lesions on all exposed extremities, and when concern exists, the clothing may be gently moved in order to permit viewing of the skin on the trunk, arms or legs. In such cases, it is prudent to have clearly documented the reasons for suspicion prior to proceeding. Bruises and abrasions on the chin and neck, inner arms, thighs and back of the knees are highly suspect, as they are typically not caused by accidental injury. The same lesions on the forehead, cheeks, elbows, knees and shins would be more likely to be accidental. Additionally, bruises that take the shape of a recognizable object, "such as a belt, clothesline, iron and hand print are usually not of accidental origin." Recent bruises appear blue-red in color and with age change from green to brown and yellow. Kittle then suggests sliding the child upward in the chair while in a supine position. Injury to the ribs or clavicles may evoke an expression of discomfort by the child and warrant further investigation.However, no matter how suspect, it is not considered reasonable for a dental practitioner to remove clothing and examine the buttocks and genitalia.Such an examination may be appropriately performed in a hospital setting. *In order to legally protect the dentist, a staff member should always remain present during a CA/CN exam and should also sign the treatment notes.*

Trauma to the orofacial region is automatically suspect until proven otherwise because of the high incidence of such trauma in cases of child maltreatment. Fractured, missing, displaced or discolored teeth; scars of the lips and mucosa; torn or scarred maxillary or mandibular frenula; and deviation or scarring of the tongue are frequently seen as the result of violent attempts to silence a child. Children who exhibit an exaggerated, often deliberate gag reflex could be victims of abuse. The presence of palatal trauma may be the result of forced feeding and/or the penetration of objects. Palatal petechiae may be a specific sign of fellatio. The lesions may be areas of erythema, single or multiple petechiae or ecchymosis. The lesions are usually painless and resolve once the activity is stopped. A medical history of chronic sore throats with no medical explanation may also be a sign of oral sexual abuse Alarmingly, nearly 75% of the perpetrators of sexual abuse are known to the child or the child's family, and are frequently family members. Such attachment between perpetrator and child may account for the shame and fear on the part of the child and help to explain the silent, insidious nature of child sexual abuse. In addition, bizarre threats of physical harm and/or abandonment often accompany sexual abuse. It is generally estimated that one in every four girls and one in ten boys will be sexually abused by age 18. Statistically, at lease one out of every ten children seen in private dental practice has suffered some form of sexual abuse. The abuse can range from exhibitionism to fondling, sodomy, rape and sexual intercourse.

When origin is not evident, oral infections should be referred to a physician for follow-up examination and any necessary testing for sexually transmitted disease, including gonorrhea, condyloma acuminatum (venereal warts), syphillis, herpes, moniliasis, trichomonas and AIDS related conditions. Casamassimo has developed a protocol for the physical evaluation of child sexual abuse (Table 2). Without testing, sexually transmitted diseases can be difficult, almost impossible to diagnose. Except

for venereal warts, all other sexually transmitted diseases present with variable findings and/or are transient in nature.

With suspicion, the dentist is then required by law to report the case to the appropriate local CPS agency.

In order to aid in the documentation of a suspected case of child maltreatment, the statutes of Virginia permit the taking of photographs and radiographs by mandated reporters without parental consent. When photographs are taken, an object of known size and color can be placed adjacent to the lesion(s) for comparison. Use can also be made of a patient identification plate in the photograph documenting name, birth date and current date. The importance of such records may prove critical as several days may lapse before a CPS worker sees a child.

Confrontation and Reporting

Once suspicion of child maltreatment is raised, questions may be asked of the child to determine how an injury occurred and who was present when the injury occurred. Open-ended questions that do not lead the child to answers are best: "How did your lip get hurt?" "Who was near you when it happened?" Parents should be interviewed similarly, noting that it is never appropriate to proceed in a manner that may be perceived as threatening. Whenever possible, interview parents and child separately. If the response of the parents and child seem incongruous, suspicion exists. In addition, the parents' explanation of the cause of injury should be correlated with physical findings. If the explanations and findings do not correlate, suspicion also exists. With suspicion, the dentist is then required by law to report the case to the appropriate local CPS agency.

After obtaining the necessary radiographic and photographic documentation, simply state to the parents the results of your examination in a factual, nonjudgmental way. This may be the appropriate time to let the parents know that concern for the child's welfare exists; "I am concerned about your child and some things that I am observing." In instances where suspicion cannot be clearly established yet concern still exists, it may be appropriate to schedule the child for a postoperative follow-up appointment. Although it is never necessary to inform the parents of the reporting, if desired, simply inform that relative to your findings, Virginia law mandates a report be filed with Child Protective Services. Emphasize to the parents that a report is not based on a perception of guilt. No matter how delicate your approach, however, some parents will respond in a reactive, even hostile manner. Some will make threatening remarks in an attempt to intimidate you from filing a report. For this reason, you may prefer to contact CPS prior to revealing your decision to the parents. In cases where immediate danger to child or office personnel is perceived, law enforcement officials may be contacted immediately.

The abusing parent may be the only one presenting with the child for medical and dental needs resultant from abuse. By so doing, that parent attempts to control the situation to avoid detection. The abusing parent is typically fearful of being confronted and may even be desirous of assistance to stop the abuse. It is estimated, in fact, that only 10% of abusive parents are psychotic or seriously disturbed. In contrast, the parent accompanying the child may also be the nonabusive parent who is also a victim of domestic violence and feels trapped, guilty and incapable of protecting the child. Intervention may be feared yet welcomed by this parent as well. In either case, it must remain clear that the purpose in reporting is to assist the family in obtaining help and guidance, not to punish.

Because every state has its own laws governing child abuse/neglect, reporting and follow-up practices may vary. In Virginia, the Child Protective Services (CPS) worker responding to a call asks for basic information, including the child's name, address, sex, date of birth, nationality/race, and the name of the school the child attends, when applicable. Your location, the parents' or caretaker's name, telephone number and address, and the circumstances that led you to suspect abuse are also requested. Any radiographs, photographs or clinical observations your office has should be mentioned. Any indications of prior injuries, abuse or neglect should be indicated as well as any information provided by third parties. If you believe further risk to the child is imminent, this should also be revealed. This referral is to be made within 24 hours of the initial suspicion.

After the call, the intake worker verifies the written department code or checks with a supervisor to make certain that the alleged abuse can be investigated in the state of Virginia. A report deemed necessary for investigation is

then assigned to a CPS social worker who determines if the victim is in immediate physical danger. If so, the social worker will respond immediately. If no imminent danger is suspected, such as in the case of dental neglect, the social worker must attempt to respond within 24 hours. There may be times when uncertainty of the need to file a report exists. When such a situation occurs, it is most appropriate to contact the CPS agency to express your concern. Discuss the facts of the case with the intake worker and provide any additional information to support your concerns. The CPS worker acts in the capacity of advisor, or consultant when necessary. Once a report has been filed, an investigation must be completed and a decision made within 45 days. Once contact has been appropriately made with CPS, your legal responsibility is fulfilled. For your own protection, it is important to document the time and date of the contact and the name of the CPS worker with a brief description of the nature of the discussion. Reports may be filed anonymously. All mandated reporters are granted immunity by law, unless malicious intent is determined. If the case goes to court, the identity of the reporter may be revealed by court order. If the reporter is called upon to testify, the facts should be presented in much the same format as originally reported to CPS.

Recently the Division of General Pediatrics and Emergency Care, MCV, Richmond, established a Child Abuse Consultation Hotline specifically for the medical community throughout the State. The phone number is 800/543-7628 and is TDD accessible for the hearing impaired. A CPS coordinator will direct the call, respond to questions, and, if necessary, set up an appointment for a patient evaluation. Pediatricians specifically skilled in the diagnosis and treatment of child abuse are also available.

If it is suspected that the child is in imminent danger, a 24-hour hotline for Child Protective Services exists in Virginia; the number is 800/552-7096.

Failure to Report

The reporting of child abuse can be a time-consuming and frequently frustrating commitment of the dentist. However, reporting is a legal mandate. According to Virginia code 63.1-248.3, "any person required to file a report who is found guilty of failure to do so [shall be fined between $100 and $1,000 per incident]." Criminal prosecution and civil action may also occur. However, caring and compassionate dentists are still reluctant to report suspected cases of child maltreatment. Schwartz and Hirsch have outlined several potential reasons for this phenomenon. They are: (1) Difficulty believing that parents would deliberately abuse their children—basically, a denial of the problem (2) Fear of being held liable, civilly or criminally, if they wrongly suspect and report child abuse (3) Distaste for "meddling" in the private affairs of the family and an extreme concern for the "sanctity of the family" (4) Misplaced duty of confidentiality in favor of the parent and family (5) Cynicism regarding legal and social agencies in this respect, believing that society's solution is worse than the problem (6) Difficulty in recognizing child abuse due to lack of training, sensitivity, or frequency of encountering child abuse (7) Fear of adverse consequences in their private practices (loss of referrals/patients/income) if they report child abuse. Konvalinka adds an eighth reason: (8) Confusion about what constitutes a reasonable suspicion. In addition, three other reasons may play a role in dentists' failure to report: (1) Feeling anxious regarding the possibility of being called into court (2) Having been a victim of abuse and choosing to "look the other way" in order to avoid confronting the reality of past experiences (3) Being an abuser and in "denial" that the issue even exists.

Dental practitioners have the opportunity to become some of the most effective advocates for the abused child. By reporting suspected cases, "the dental professional can help these troubled families obtain the appropriate services and help protect the child from further harm.

Other Victims of Abuse

The present law in Virginia also requires that health care providers report suspicion of neglect or exploitation of spouses and the elderly. In actuality, battered women are even more common than abused children, and elder abuse is at least as common as child abuse. Abuse of the disabled is also of tremendous concern. Adult Protective Services exists as another division of the Virginia Department of Social Services and can be accessed by calling the branch in the locale where the abuse is thought to be occurring. Reports are filed in much the same way as described for children. (Appendix II)

Conclusion

When considering the obligation to report suspected cases of child maltreatment, it is important to remember the scope of

the problem and the devastating impact it has on the child, the family and society. Behavioral and psychological effects generally begin at the time of abuse, continue throughout the victim's lifetime, and are typically perpetuated for generations thereafter. It is estimated that between 85-95% of all juveniles in detention homes have been victims of abuse. In addition, it is estimated that up to 100% of child prostitutes were once victims of incest. However, if intervention is sought on behalf of children, the abuse can stop. A loving environment can be made available with appropriate professional care. True healing can occur for the individual, and perhaps even for the entire family.

Dental practitioners must open their minds to the facts; their eyes to the signs and symptoms; their voices as advocates. Clearly, with regard to child abuse, "if we are not part of the solution, we are part of the problem." State and national resource agencies and organizations are available to assist in these efforts (Appendix II).

Further Information

A highly informative videotape program on child abuse is available, on loan, through the VDA. The tape series and workbook produced by the Department of Pediatric Dentistry, University of Washington School of Dentistry, is entitled, "Child Maltreatment: Implications for the Dental Team." It is well-suited for in-office training, a study club or component program. The total viewing time is 83 minutes, not including time to review the workbook material. The program may be reserved by contacting the VDA central office (800/552-3886). Numerous bibliographic sources are also available by contacting the reference library, American Dental Association (800/621-8099). Additionally, an initiative of Delta Dental is spreading throughout the country and is known as the Prevent Abuse and Neglect through Dental Awareness (PANDA) coalition. Delta Dental, state dental associations and dental schools are being asked to join forces in order to educate dental professionals as to their role in protecting children from abuse and neglect.

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Appendix I
Definitions of Abuse and Neglect
Virginia Department of Social Services, Volume VII, Section III, Chapter A, July 1992

Physical Abuse: Any physical injury, threat of injury or creation of a real and significant danger of substantial risk of death, disfigurement or impairment of bodily functions. Such injury or threat of injury, regardless of intent, if inflicted or allowed to be inflicted by non-accidental means.

Physical Neglect: The failure to provide food, clothing, shelter or supervision for a child to the extent that the child's health or safety is endangered. This also includes situations where the parent/caretaker's own incapacitating behavior, disruption of family functioning, or absence prevents or severely limits the caretaker from performing minimal child caring tasks. In situations where there are no resources available and the condition is one of poverty, appropriate services may be provided but the parent/caretaker should not be determined to have been neglectful. Physical neglect may include multiple occurrences or a one-time critical or severe event that results in a threat to health or safety.

Medical Neglect: Refusal by the caretaker to obtain and/or follow through with a complete regimen of medical, mental or dental care for a condition which, if untreated, could result in illness or developmental delays. This definition does not apply to a child who, in good faith, is under treatment solely by spiritual means through prayer in accordance with the tenets and practices of a recognized church or religious denomination...This definition applies to situations where parents do not attempt to get a diagnosis even when the child's symptoms are severe and observable...Failure to provide preventive measures such as immunizations...do not constitute medical neglect.

Failure to Thrive: A syndrome of infancy and early childhood which is characterized by growth failure, signs of severe malnutrition, and variable degrees of developmental retardation. Children are considered to be in this category only when this syndrome is diagnosed by a physician and is caused by non-organic factors.

Emotional Abuse/Neglect: A pattern of acts or omissions by the caretaker which result in harm to a child's psychological

or emotional health or development. The child demonstrates psychological or emotional dysfunction as a result of the caretaker's action/inaction. It is recommended that professional documentation be obtained to support the existence of such dysfunction.

Sexual Abuse: Includes any act defined in the Code of Virginia, 18.2-61-67.10 and 18-2-351-371 which is committed, or allowed to be committed upon a child by his/her parent or other person responsible for the child's care...to include sexual use of a child for sexual arousal, gratification or advantage...The term *sexual molestation* refers to sexual contact between a caretaker and a child when such contact, touching or interaction is used for arousal or gratification of sexual needs or desires.

Educational Neglect: The child's caretaker is directly responsible for the failure of the child to attend school or an approved alternative program of study. This definition assumes that the school has exhausted its resources including court action, before CPS becomes involved.

Bizarre Discipline: Any actions in which the caretaker uses eccentric, irrational or grossly inappropriate procedures or devices to modify the child's behavior. The consequence for the child may be physical or mental injury or the denial of basic physical necessities. Emphasis is on the behavior of the caretaker, not just on the consequence of the behavior on the child.

Appendix II Resources

Virginia Department of Social Services
8007 Discovery Drive
Richmond, VA 23229-8699
Child Protective Services Unit
804/662-9081
Program Manager: Rita Katzman

Child Abuse Hotline
1/800/552-7096
Voice, TDD Accessible

Virginians for Child Abuse Prevention, Inc.
224 E. Broad St., Suite 302
Richmond, VA 23219
804/775-1777
Director: Barbara Rawn

Virginians Against Domestic Violence
P.O. Box 5692
Richmond, VA 23220
804/780-3505
Director: Judy Gundy

State Office on Spouse Abuse
Virginia Department of Social Services
8007 Discovery Drive
Richmond, VA 23229-8699
804/662-9029
Program Specialist: Deb Downing

Virginia Missing Child Information Clearinghouse
1/800/882-4453
(1/800/VA CHILD)

Parents United, Inc.
P.O. Box 953
San Jose, CA 95108
408/280-5055

Clearinghouse on Child Abuse and Neglect and Family Violence Information
P.O. Box 1182
Washington, DC 20013

Alcohol and Drug Abuse
Alcohol and Drug Abuse Hotline
1/800/ALCOHOL
National Cocaine Hotline
1/800/COCAINE

Battered Women
National Battered Women's Hotline
1/800/432-9777

Disabilities
Virginia Disabled/Developmental Disabilities Protection & Advocacy Hotline
1/800/552-3962

Family Violence
National Council on Child Abuse and Family Violence: Child Abuse, Spouse Abuse and Elder Abuse
1/800/222-2000

Missing Children
National Runaway Switchboard
1/800/621-4000
Missing Children's Bureau of Virginia
1/800/822-4453

Table I
Behavioral and Physical Evaluation for Child Maltreatment

General behavioral and physical overview:
Physical and verbal interaction between parent and child
Overly vigilant or uninterested parent
Individual behavior and overall demeanor of child
Overly passive or overly aggressive tendencies in child
Bizarre or unusual behavior by parent or child
Child's overall stature and physical presentation
Clothing appropriate for weather

Specific physical overview:
Symmetry of head and soft or tender areas
Condition of scalp, hair and skin under hair on face and neck
Abnormalities of ears and/or eyes
Nasal bloodclots
Face, neck and external throat markings
Facial and/or body bruises in varying stages of healing
Orofacial injury of any sort
Injury to ribs or clavicles

Intraoral overview:
Fractured, missing or displaced teeth
Severely decaying teeth
Exaggerated gag reflex
Chronic sore throats not explained by medical history
Palatal petechiae
Soft tissue tears or lacerations
Oral lesions indicative of viral or bacterial infection

Parent/child interview
Responses incongruous
Explanations that do not correlate with physical findings

(Continued on page 35)

Informed Consent and Behavior Management

by Carl O. Atkins, Jr. DDS and Frank H. Farrington, DDS *Dr. Atkins is a pediatric dentist practicing in Richmond; Dr. Farrington is Chair, Department of Pediatric Dentistry, MCV School of Dentistry.*

The dental treatment of children today has been affected by a cautious and critical society. Parents today view themselves as consumers of dental services and they examine health care providers with careful scrutiny. Their opinions are influenced by the media, which encourages parents to educate themselves and to be active participants in health care decisions. A good rapport between parent and dentist is essential for a positive outcome.

One of the dentist's ultimate goals should be a patient without caries. This is achieved by the combined use of water fluoridation, topical fluoride, supplemental fluoride if necessary, the daily use of the appropriate amounts of a fluoride dentifrice, the placement of pit and fissure sealants, nutritional counseling, strict home oral hygiene and the maintenance of existing restorations. Regular professional attention begins with oral evaluation and parental counseling at no later than 12 months of age. Of course, the target of our well-intentioned attentions is at times wary and resistant to treatment.

In the past, consent was implied as long as the parent approved the treatment plan. Today, parents often insist on being present for their child's dental treatment—not to monitor the child's behavior, but to observe the methods and work of the dentist and office staff. Some methods of facilitating difficult dental procedures on young and/or uncooperative patients are being questioned. It is imperative that the parent be informed not only about the treatment needed and the alternatives to this treatment, but also the ways that this treatment will be accomplished.

In an attempt to establish guidelines for the management of the pediatric patient in the dental environment, the Virginia Board of Dentistry recently adopted the American Academy of Pediatric Dentistry's *Guidelines for Behavior Management,*Revised May, 1991, as its guideline for all dentists treating children.

Dental practitioners are encouraged to perform behavior management consistent with their educational training and clinical experience. Dentistry's main goal is to guide the public in developing and maintaining healthy, natural dentitions. In keeping with that goal, every dental practitioner treating children is expected to recognize and effectively treat childhood dental diseases that are commonplace within the skills acquired by graduates of dental schools in the United States and Canada. Behavior management cases that are beyond the training, experience and expertise of individual practitioners should be referred to practitioners who can render care more appropriately.

The American Academy of Pediatric Dentistry's behavior management methods are directed towards communication and education. Dialogue, facial expression and voice tone

are used to deliver the dental care provider's message. These are used to extinguish inappropriate behavior and establish authority. None of the methods presented can be evaluated alone, but must be evaluated by the child's total experience. The two main objectives of the American Academy of Pediatric Dentistry guidelines are to treat the child effectively and to instill a positive dental attitude. This makes behavior management as much an art as a science. Parents often expect the dentist to manage their child's behavior with little fuss. The fact that children, especially the very young, often cry, do not want to cooperate and are resistant is normal and age-appropriate behavior. This is the same response they give for any situation they do not like, such as the grocery store checkout line.

Barriers to these goals include emotional or physical problems, fears learned from parents, prior dental experiences and poor initial preparation for dental visits. To overcome these barriers the dentist becomes a teacher to both patient and parent. It is the dentist's responsibility to assess the child's developmental level and the dental attitudes of the child and parent, and to predict their choice of treatment under most circumstances. These treatment decisions must be made with the assistance of the child's parents. The dentist serves as the source for identifying dental pathology and treatment methodology. The parent must be consulted on the issues of management and treatment of the child after an explanation of the various options and potential risks has taken place.

The dentist is responsible to inform the parent about the use of the behavior management methods, indications, contraindications, significant risks, alternate methods of treatment and answer all questions before the method is used. This does not include the communicative management methods which are basic elements of communication, and require no specific consent. Emergency situations may arise which require the use of a behavior management technique prior to being able to obtain consent in order to avoid immediate injury to the patient, doctor, and/or staff and in these cases consent may be implied. Once the emergency is under control all treatment should stop and the parent informed of the techniques used to handle the emergency. Consent then must be obtained for any further treatment.

Not every child requires behavior management techniques that require prior consent, so it is inappropriate and perhaps inflammatory to attempt to get the parents to give consent for techniques never needed just to be thorough before the child is ever examined. Several situations do arise in which it is possible and appropriate to discuss behavior management techniques before the child is examined. If the child is referred after previous attempts at treatment by another practitioner were unsuccessful, it would be prudent to discuss and obtain consent for the use of behavior management techniques appropriate for the anticipated behavior from the parents before the child is treated. If a child presents for the initial appointment so upset that a simple exam will be difficult, and cannot cooperate for a prophylaxis, topical fluoride or radiographys, it is prudent to consult with the parents to discuss the child's behavior and how it might be managed before continuing with the other preventative or diagnostic procedures.

It is often the unexpected reaction of a previously compliant child that causes the most problems for the dental professional. There are times when stopping treatment or not finishing a procedure will cause more harm to the patient than the procedure's completion. For example, it would be more harmful to leave a vital pulpotomy access open than it would be to restrain an unmanageable child long enough to place a temporary restoration in the tooth and then discuss further treatment with the parents before proceeding. Another time when action is called for before consent can be obtained is if the patient is behaving in a manner that will cause immediate harm to the patient, practitioner or staff and delay to obtain consent would result in further injury. It is important for the dentist to talk to the parent after any incident. A parent is likely to become upset when a crying child tells them that the dentist yelled at me and shoved my hands down when what happened is that the child reached up to grab a sharp instrument and was stopped and told in a firm voice, *"Put your hand down!"* in order to protect the patient. A misunderstanding of the practitioner's intent may also occur when the child is brought to the appointment by someone other than the parent or guardian who gave consent. In our society with two-career couples and single parent families, it is not uncommon for the practitioner to obtain consent from the custodial parent who will then entrust another adult with the responsibility of bringing the child for the dental appointments. Ideally it would be prudent to have both parents or the custodial parent and the person who will be providing transportation present for the treatment plan-

ning session to discuss the possible use of behavior management techniques so that there is no miscommunication. As ideal as this may be, it is not always practical or even possible.

The discussion of behavior management techniques should be documented in the patient's chart and, in fact, can be included in the treatment plan presentation that the parent should sign before any treatment is delivered. The language used to relay the information on behavior management techniques is very important. It is important to present the techniques in clear, concise and non-threatening terms. For example, physical restraint may be presented as "holding the child to protect them while the dentist looks at their teeth," rather than "we will have to restrain your child because of his uncooperative behavior." Other examples of explanations are included in Figure 1.

Whatever the procedure and/or behavior management techniques employed, it is important to document the patient's behavior for each appointment in the record. A verbal narrative may be used; however, it is more common and time efficient to use a behavior rating scale such as the Frankel Scale. This Scale uses pluses and minuses to indicate the child's behavior. For example, Beh (++) indicates very good behavior; Beh (—), very bad. A single plus (+) or minus (-) for behavior in between. A notation of Beh (-) inj Beh (++) means the child did not do well for the injection but was very well behaved for the other procedures.

All behavior management techniques other than general anesthesia rely on communication to establish a trusting relationship between the practitioner and child. The establishment of this cooperative relationship may then allow the successful completion of the dental procedure, while simultaneously fostering a positive attitude in the child toward dental care. Communication as a management technique is an ongoing art and skill that is an extension of the dentist's personality and skills rather than a prescribed technique with specific steps to follow. The specific techniques associated with communicative management are voice control, distraction, positive reinforcement, tell-show-do, and nonverbal communication. These methods are widely accepted and are appropriate for use with all communicative patients, without specific consent and documentation prior to use.

The use of different voice tone, volume or pace to gain the patient's attention and compliance is termed voice control. It can be used to control negative or avoidance behavior or establish authority. The inattentive or uncooperative verbal child is a good candidate for this technique. Children who are too young, disabled or show emotional immaturity are not good subjects for this method. The tell-show-do method is used by many professionals. The child first receives a verbal description of what is to be done; the practitioner then shows the child the procedure and performs the procedure on the patient just as described. This method is the keystone for teaching any appropriate responses to dental stimuli through desensitization and well-described expectations. Any patient, able to communicate, is a good candidate for this method, no matter the developmental level.

Distraction diverts the patient's attention from anything that may be perceived as unpleasant. This reduces the perception of an obnoxious stimulation and can be used for any patient. As an example, talk about the bad taste of the local anesthetic solution, not about the fact that it hurts to get an injection.

Not all communication must be verbal. The contact, posture and facial expressions delivered to the patient by the dentist and staff enhance the communicative skills and help to gain the patient's attention and compliance and may be used with any patient.

Patients that are unable to cooperate for reasons of age or mental, physical or medical conditions need other methods of management. Before any of the following techniques are used, consent should be obtained by the practitioner from the parent or legal guardian.

Flooding techniques such as hand-over-mouth (HOM) and physical restraint, nitrous oxide analgesia, conscious sedation, general anesthesia, are used with varying frequency. The psychological flooding technique of hand-over-mouth can be an effective behavior technique. Its use requires the practitioner to place a hand over the patient's mouth to control the level of noise being produced by the child. Behavioral expectations can then be calmly explained; the child is told that the hand will be removed as soon as the desired behavior begins. In order to use this technique properly the practitioner must have previously determined that the child is capable of understanding, but is exhibiting defiant or hysterical behavior. According to the guidelines, *consent should be obtained prior to use of this technique.*

The other most common non-pharmacological method of behavior management is physical restraint. Its use is to protect the child, and sometimes the staff, from harm while providing care. The patient may be restrained by the parent, dentist or staff member(s) with or without the use of a restraining device. In order to document the use of restraint, the treatment record must contain informed consent, the type of restraint, its indications and the length of time the restraint was used. This technique is appropriate for examination, emergency care and short treatment for children who lack cooperative ability due to immaturity, who are physically or mentally handicapped, who choose not to cooperate with other behavior management techniques or when the safety of the patient or practitioner would be at risk.

The most benign pharmacological technique is nitrous oxide-oxygen inhalation analgesia. In selected dental patients, and implemented by appropriately trained dentists, this is a safe and effective method of controlling behavior which is easily titrated, fast acting and with a minimal recovery period. Reduction or elimination of anxiety expedites the comfortable delivery of dental treatment. Patient cooperation is increased, the gag reflex is reduced, and the pain threshold is raised, as is tolerance for longer appointments. The use of nitrous oxide is contraindicated in patients with obstructive lung disease, drug dependency and in the first and last trimesters of pregnancy.

For patients who are unable to cooperate for nitrous oxide analgesia, the use of conscious sedation is an alternative if there are no medical contraindications. Conscious sedation is defined as a minimally reduced level of consciousness that retains the patient's ability to independently maintain a patent airway. The patient remains responsive to verbal commands and responds appropriately to physical stimulation. The drugs, dosages and techniques used should carry a margin of safety wide enough to make unintended loss of consciousness unlikely. Clearly, appropriate training for the dentist is essential here as well. The goals of this technique are to provide quality care, manage disruptive behavior while producing a positive response to treatment and to return the patient to a physiologic state for safe discharge. Written consent must be obtained before the use of sedation.

During the sedation appointment the child should have his/her level of consciousness continually assessed and the patency of the airway should be monitored using a precordial stethoscope. Oxygen saturation must be continuously monitored by pulse oximetry. Heart and respiratory rates shall be recorded on a time based record, and a sphygmomanometer must be readily available. An additional person must be present who is trained to monitor vital signs and assist in any supportive or resuscitative measures. Both individuals must be trained in basic life support and have specific assignments in an emergency situation. The sedated patient must be observed at all times by a trained individual.

The line between conscious sedation and deep sedation can be a fine one. Once patients cannot be easily aroused and display some loss of protective reflexes, by definition they are deeply sedated. The deeply sedated patient must be monitored by an appropriately trained individual at all times. The treating practitioner may direct the sedation, and another person must be present to assist the operator as necessary. In addition to the required monitoring for conscious sedation blood pressure monitoring is required, and EKG (ECG), capnography and temperature monitoring are desirable.

For those patients who require extensive dental restorations and/or are not candidates for sedation, then the alternative is general anesthesia. This is provided in either an outpatient setting in the office, ambulatory care setting for the healthier patient or as a hospital inpatient for those patients with medically compromising conditions.

Written consent must be obtained before the use of sedation.

The prudent practitioner should follow these guidelines to help foster understanding between the patient, parents and those providing treatment. Open communication with adequate information on both sides is the most consistent way to insure understanding, compliance and acceptance of dental treatment which will help achieve our goals.

References:

American Academy of Pediatric Dentistry, "Pediatric Dentistry Special Issue: Reference Manual 1993-94," Volume 15, Number 7, pp. 41-44, 50-54.

Figure 1

A Representative Document: Informed Consent

Accepting dental treatment is a learned skill and one of our major goals is to help your

child acquire this skill. It is normal for children to be apprehensive about new experiences. Very young children lack the ability to cooperate, while some older children have learned that by exhibiting negative behavior they can control their environment. In order to take care of your child, we must help him/her learn to accept dental treatment. The following is a brief explanation of some of our methods. Since each child is unique, no list can be complete and other methods may need to be explained as needed.

Mouth prop: A "tooth pillow" is used so the child's jaw muscles don't become over tired during the procedures and to help protect the child from the consequences of biting the handpiece.

Local anesthesia: Most restorative procedures require the use of a local anesthetic. We grew up calling it "novocaine." Please avoid using words such as "shot, needle or injection"; we never use these words around children.

A topical anesthetic is used to help numb the gum at the injection site. The child is then told we are going to "put their tooth to sleep" and that they need to close their eyes because if the "sleepy juice" gets in their eyes it will burn like soap. This is one of the few "untruths" we ever tell the child; it doesn't burn the eyes, but we don't want the syringe seen. The dental assistant places an arm lightly across the child's chest or holds the child's hands during the injection to protect the child from reaching up, grabbing the syringe and hurting himself/herself. The child is told they may feel a small "pinch" when the "sleepy juice" goes in, and that the "sleepy juice" tastes "yukky." (It does!)

Guidelines for Behavior Management

of The American Academy of Pediatric Dentistry

Revised May 1991

Introduction

Behavior management methods in pediatric dentistry are directed toward the goals of communication and education. The relationship between the dentist and child is built through a dynamic process of dialogue, facial expression and voice tone; all methods of delivering a message. Some of the specific methods in this document are intended to maintain the communication process while others are intended to extinguish inappropriate behavior. Behavior management methods cannot be evaluated on an individual basis as to validity, but must be evaluated within the context of the child's total dental experience. Behavior management for the pediatric dental patient is as much an art form as it is a science. It is not an application of individual techniques created to "deal" with children, but rather a comprehensive methodology meant to build trust and allay a child's fears and anxieties. Since children exhibit a wide range of development and a diversity of attitudes toward dental treatment, it is imperative that dentists have at their disposal a wide range of behavior management methods and communication techniques to meet the needs of the individual child.

Dental practitioners are encouraged to perform behavior management consistent with their educational training and clinical experience. Dentistry's main goal is to guide the public in developing and maintaining healthy, natural dentitions. In keeping with that goal, every dental practitioner treating children is expected to recognize and effectively treat childhood dental diseases that are commonplace and within the skills acquired by graduates of dental schools in the United States and Canada. Behavior management cases that are beyond training, experience and expertise of individual practitioners should be referred to practitioners who can render care more appropriately.

Overview

Maintaining compliance of children in the dental environment demands skills of verbal guidance, expectation setting, extinction of inappropriate behavior, and reinforcement of appropriate responses. Since children exhibit a range of development and a diversity of attitudes as they enter the dental office, it is imperative that dentists have at their disposal a wide range of behavior management methods which are deemed useful in pediatric dentistry. Each method has been approved by the American Academy of Pediatric Dentistry.

These guidelines are based on the prescribed use of behavior management techniques as documented in the dental literature and on the professional standards of both the academic and practicing pediatric dental community. The guidelines are reflective of the American Academy of Pediatric Dentistry's role as an advocate for the improvement of the overall health of the child.

Two objectives of behavior management are to preform treatment effectively and efficiently for the child and to instill in the child a positive dental attitude. These objectives must be the emphases of any practitioner who treats children. Achievement of these objectives relies on the foundations of behavior management: communication and education. Behavior management is a continuum of interaction with the child directed toward communication and education in an endeavor to allay anxiety and fear and to promote an understanding of not only the need for good dental health but also the process by which it is achieved.

Unfortunately, many barriers hinder the achievement of these ambitious goals. The causes of inappropriate behavior of a child in the dental office are varied. Developmental delay, mental retardation and acute or chronic disease all are obvious reasons for non-compliance. Reasons for noncompliance in the communicating child often are more subtle and difficult to diagnose. Major contributing factors, however, can be identified. Fears transmitted from parents, a child's prior experience with a dentist who was not adept at relating to children, or an inappropriately prepared child's first encounter in the dental environment can lead to a child's uncooperative behavior. In order to alleviate these barriers, the dentist becomes a teacher. The dentist's methodology should include good communication, analysis of the patient's developmental level and comprehension skills, a message directed to that level, and a patient who is attentive to the message being delivered. In order to accomplish good dental treatment and an educated patient, it is mandatory that the "teacher-student" roles and relationship be established and maintained.

Decisions regarding intended treatment are difficult ones. The child who presents with significant pathology and noncompliance tests the skills of every practitioner. A dentist treating children should have a variety of behavior management approaches and should, under most situations, be able to assess accurately the child's developmental level, dental attitudes, and predict the child's reaction to the choice of treatment. However, by virtue of each practitioner's differences in training, experience and personality, methods utilized may vary in managing the same child.

Regardless of the variation in behavior management methods utilized by each individual practitioner, all management decisions must be based on an evaluation weighing benefit versus risk to the child. Considerations regarding need of treatment, sequelae of deferred treatment and potential physical/emotional trauma must be entered into the decision-making equation. The evaluation of risk and benefit to a child is subjective.

Decisions regarding treatment of children must not be made unilaterally by the dentist. Decisions must involve parents and, if appropriate, the child. The dentist serves as the expert regarding dental pathology, the need for treatment and the method by which treatment can be carried out. The parent, however, maintains responsibility over the management and treatment of the child and must be consulted regarding treatment options and potential risks. Therefore, the successful completion of diagnostic and therapeutic services must be viewed as a partnership of dentist, parent and child.

Informed Consent

Although the behavior management methods included in this document frequently are used by dentists, parents may not be entirely familiar with some of them. It is important that the dentist inform the parent (or legal guardian) about the use of the method, indications, contraindications, significant risks and alternate treatments, and that all questions are answered before the method is used. Except for communicative management methods (see below) which, by virtue of being basic elements of communication, require no specific consent, informed consent must be obtained prior to utilizing behavior management methods. In addition, an emergency situation may arise which necessitates use of a technique prior to being able to obtain consent to avoid immediate injury to the patient, doctor, and/or staff, and consent may then be implied.

Summary

(1) Behavior management is only in part a science and must be recognized as an art form to health care delivery.

(2) The goals of behavior management are to achieve good dental health in the child patient and to help develop the child's positive attitude toward dental health.

(3) The objectives of behavior management are to establish communication and to foster education, thereby alleviating fear and anxiety and building a trusting relationship between dentist and child.

(4) All decisions regarding behavior must be based on a

benefit versus risk evaluation.

(5) Parents share in the decision-making process regarding treatment of their children.

I. Communicative Management

Introduction

Communicative management is used universally in pediatric dentistry with both the cooperative and uncooperative child. It comprises the most fundamental form of behavior management in that it is the basis for establishing a relationship with the child which may allow the successful completion of dental procedures and, at the same time, may help the child develop a positive attitude towards dental care. Communicative management is an ongoing process rather than a technique. It is a subjective process and an extension of the personality and skills of the dentist rather than a well-described technique. Associated with this process are the specific techniques of nonverbal communication. Since these comprise basic elements of communication and since they are widely used and widely accepted, they are appropriate for all communicative patients. In addition, no specific consent is necessary prior to use, and no documentation is required.

A. Voice Control

Description: Voice control is a controlled alteration of voice volume, tone or pace to influence and direct the patient's behavior.

Objectives:
1) To gain the patient's attention and compliance
2) To avert negative or avoidance behavior
3) To establish authority

Indications: Voice control is indicated for the uncooperative or inattentive, communicative child.
Contraindications: In children who, due to age, disability, medication or emotional immaturity are unable to understand and cooperate.

B. Tell-Show-Do

Description: Tell-show-do is a method of behavior shaping used by many professionals who work with children. The method involves verbal explanations of procedures in phrases appropriate to the developmental level of the patient (Tell); demonstrations for the patient of the visual, auditory, olfactory and tactile aspects of the procedure in a carefully defined, non-threatening setting (Show); and then, without deviating from the explanation and demonstration, completion of the procedure (Do). The Tell-show-do method is used with communication skills (verbal and nonverbal) and positive reinforcement.

Objectives:
1) To teach the patient important aspects of the dental visit
2) To shape the patient's response to procedures through desensitization and well-described expectations

Indications: All patients who can communicate regardless of the level or the method of communication.
Contraindications: None

C. Positive Reinforcement

Description: In the process of establishing desirable patient behavior, it is essential to give appropriate feedback. Positive reenforcement is an effective method to strengthen the occurrence of desired behaviors. Social reinforcers include verbal praise, voice modulation, facial expression and appropriate physical demonstrations of affection by all members of the dental team. Nonsocial reinforcers include tokens and toys.

Objective: To reinforce desired behavior
Indications: May be useful for any patient
Contraindications: None

D. Distraction

Description: Distraction is the technique of diverting the patient's attention from what may be perceived as an unpleasant procedure.

Objective: To decrease the perception of unpleasantness
Indications: May be used with any patient
Contraindications: None

E. Nonverbal Communication

Description: Nonverbal communication is conveying reinforcement and guiding behavior through contact, posture and facial expression

Objectives:
1) To enhance the effectiveness of other Communicative Management techniques
2) To gain or maintain the patient's attention and compliance

Indications: May be used with any patient
Contraindications: None

II. Conscious Sedation

Introduction

Conscious sedation can be used safely and effectively with patients unable to receive dental care for reasons of age or mental, physical or medical condition.

Conscious sedation is a minimally depressed level of consciousness that retains the patient's ability to maintain a patent airway independently and continuously, and respond appropriately to physical stimulation and/or verbal command, e.g., "Open your eyes." For the very young or handicapped individual, incapable of the usually expected verbal responses, a minimally depressed level of consciousness for that individual should be maintained. The caveat that loss of consciousness should be unlikely is a particularly important part of the definition of conscious sedation, and the drugs and techniques used should carry a margin of safety wide enough to render unintended loss of consciousness unlikely.

Documentation for the use of conscious sedation is detailed in the AAPDAAP *Guidelines for the elective use of conscious sedation, deep sedation, and general anesthesia in pediatric dentistry, Pediatric Dentistry* 7:334-37, 1985.

The need to diagnose and treat as well as the safety of the patient must justify the use of conscious sedation. The decision to use conscious sedation must take into consideration:

1) Alternative behavioral management modalities
2) Dental needs of the patient
3) Quality of dental care
4) Patient's emotional development
5) Patient's physical considerations

Parental or guardian written consent must be obtained prior to the use of conscious sedation.

Objectives:
1) To reduce or eliminate anxiety in dental patients so that safe, comfortable, quality dental treatment can be rendered
2) To reduce untoward movement and reaction to dental treatment
3) To enhance communication and patient cooperation
4) To increase tolerance for longer appointments
5) To aid in treatment of the mentally, physically or medically compromised patient.

Indications:
1) Patients who are ASA Class I or II
2) Patients requiring dental care who cannot cooperate due to a lack of psychological or emotional maturity
3) Patients requiring dental care who cannot cooperate due to a mental, physical or medical disability
4) Patients requiring dental care for who the use of sedation may protect the developing psyche

Contraindications:
1) The cooperative patient with minimal dental needs
2) Medical contraindication to sedation

III. General Anesthesia

Introduction

The use of general anesthesia sometimes is necessary to provide quality dental care for the child. Depending on the patient, this can be done in an ambulatory care setting, at a same day surgery center, in an out-patient surgery area of a hospital or in an in-patient admission to the hospital.

General anesthesia is a controlled state of unconsciousness accompanied by a loss of protective reflexes, including the ability to maintain an airway independently and respond purposefully to physical stimulation or verbal command.

The need to diagnose and treat as well as the safety of the patient and practitioner must justify the use of general anesthesia. The decision to use general anesthesia must take into consideration:
1) Alternative behavior management modalities
2) Patient's dental needs
3) Quality of dental care
4) Patient's emotional development
5) Patient's physical considerations
6) Patient's requiring dental care for whom the use of general anesthesia may protect the developing psyche

Parental or guardian written consent must be obtained prior to the use of general anesthesia. The following must be included in the patient's dental record: a) Informed consent, b) Justification for the use of general anesthesia

Objectives: To provide safe, efficient and effective dental care

Indications:
1) Patients with certain physical, mental or medically compromising conditions
2) Patients with dental needs for whom local anesthesia is ineffective because of acute infection, anatomic variations or allergy
3) The extremely uncooperative, fearful, anxious or uncommunicative child or adolescent with dental needs deemed sufficiently important that dental care cannot be deferred
4) Patients who have sustained extensive orofacial and dental trauma
5) Patients with dental needs who otherwise would not obtain necessary dental care
6) Patients requiring dental care for whom the use of general anesthesia may protect the developing psyche.

Contraindications:
1) A healthy, cooperative patient with minimal dental needs
2) Medical contraindication to general anesthesia

IV. Hand-Over-Mouth (HOM)

Introduction

HOM is a commonly accepted and effective behavior management method which has been documented in the dental literature for more than 25 years. A hand is placed over the child's mouth and behavioral expectations are calmly explained. The child is told that the hand will be removed as soon as appropriate behavior begins. When the child responds the hand is removed and the child's appropriate behavior is reinforced. The method may require reapplication.

The need to diagnose and treat as well as the safety of the patient and practitioner must justify the use of HOM. The decision to use HOM must take into consideration:
1) Other alternate behavioral modalities
2) Patient's dental needs
3) Quality of dental care
4) Patient's emotional development
5) Patient's physical considerations

Parental or guardian consent must be obtained prior to use of HOM.

The following must be included in the patient record: a) Informed consent b) Indication for the use of HOM.

Objectives:
1) To gain the child's attention enabling communication with the dentist so that appropriate behavioral expectations can be explained
2) To eliminate inappropriate avoidance responses to dental treatment and to establish appropriate learned responses
3) To enhance the child's self-confidence in coping with the anxiety-provoking stimuli of dental treatment
4) To ensure the child's safety in the delivery of quality dental treatment

Indications:
A healthy child, who is able to understand and cooperate but who exhibits defiant, obstreperous or hysterical avoidance behaviors to dental treatment

Contraindications:
1) In children who, due to age, disability, medication or emotional immaturity are unable to understand and cooperate
2) When it will prevent the child from breathing

V. Nitrous Oxide-Oxygen Inhalation Sedation

Introduction
Nitrous oxide/oxygen inhalation sedation is a conscious sedation technique which is a safe and effective behavior management adjunct to the treatment of selected dental patients. Its onset of action is fast, its depth of sedation is easily titrated and recovery is rapid and complete. Additionally, the technique provides a variable degree of analgesia for some patients.

The need to diagnose and treat as well as the safety of the patient and practitioner must justify the use of nitrous oxide. The decision to use nitrous oxide must take into consideration:
1) Alternative behavioral management modalities
2) Dental needs of the patient
3) Quality of dental care
4) Patient's emotional development
5) Patient's physical considerations.

Parental or guardian consent must be obtained prior to use of nitrous oxide.

The patient's record should include:
1) Indication for use
2) Notation that consent was obtained
3) Nitrous-oxide dosage:
a) Per cent nitrous oxide and/or flow rate
b) Duration of the procedure

Objectives:
1) To reduce or eliminate anxiety in dental patients so safe, comfortable, quality dental treatment can be rendered.
2) To reduce untoward movement and reaction to dental treatment
3) To enhance communication and patient cooperation
4) To raise the pain reaction threshold
5) To increase tolerance for longer appointments
6) To aid in treatment of the mentally, physically or medically compromised patient
7) To reduce gagging

Indications:
1) A fearful, anxious or obstreperous patient
2) Certain mentally, physically or medically compromised patients
3) A patient whose gag reflex interferes with dental care
4) A patient for whom profound local anesthesia cannot be obtained

Contraindications:
1) May be contraindicated in come chronic obstructive pulmonary diseases
2) May be contraindicated in certain patients with severe emotional disturbances or drug-related dependencies
3) Patients in the first trimester of pregnancy
4) Patients with drug-induced or disease-induced pulmonary fibrosis.

VI. Physical Restraint

Introduction

Partial or complete immobilization of the patient sometimes is necessary to protect the patient and/or the dental staff from injury while providing dental care. Restraint can be performed by the dentist, staff, or parent, with or without the aid of a restraining device.

The need to diagnose and treat as well to protect the safety of the patient and practitioner must justify the use of restraint. The decision to use patient restraint must take into consideration:

1) Other alternate behavioral modalities
2) Dental needs of the patient
3) Quality of dental care
4) Patient's emotional development
5) Patient's physical considerations

Parental or guardian consent must be obtained prior to use of restraint.

The following must be included in the patient record:

1) Informed consent
2) Type of restraint used
3) Indication for restraint
4) The time restraint was used

Objectives:

1) To reduce or eliminate untoward movement
2) To protect patient and dental staff from injury
3) To facilitate delivery of quality dental treatment

Indications:

1) A patient who required diagnosis and/or treatment and cannot cooperate due to lack of maturity
2) A patient who requires diagnosis and/or treatment and cannot cooperate due to mental or physical handicap
3) A patient who requires diagnosis and/or treatment and does not cooperate after other behavior management techniques have failed
4) When the safety of the patient and/or practitioner would be at risk without the protective use of restraint.

Contraindications:

1) A cooperative patient
2) A patient who cannot be restrained safely due to underlying medical or systemic conditions.

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The Role of Child Protective Services

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Abuse and neglect of children is reported over 50,000 times annually in Virginia. Each report requires an investigation by the Child Protective Services (CPS) system. The goal of CPS in each investigation is to protect children, preserve families whenever possible and to prevent further abuse or neglect. The purpose of this paper is to help dental professionals understand how the CPS system works.

When a local social service agency receives a call suspecting child abuse or neglect, the agency must determine whether the report is a valid complaint. The CPS worker asks for needed information such as what prompted the call, what is or has been the problem, the extent of harm, how long the problem has been going on, the whereabouts of the caretaker and the child, and who else knows the situation.

The circumstances must be reported in the city or county where the child lives, where the abuse occurred, or, if neither of these is known, where the abuse is discovered (i.e., the dental office). The circumstances must also meet the definition of child abuse or neglect which states: (Section 63.1-238, *et seq.*) the abused or neglected child is any child under 18 years of age whose parent or caretaker:

- causes physical or mental injury to the child
- abandons the child
- fails to provide basic needs for the child
- fails to provide appropriate supervision for the child
- sexually exploits the child

Should the reported circumstances meet the specified criteria, the CPS worker then contacts the Child Abuse Neglect Information System (CANIS), to get a complaint number. A computer search is conducted to see if the alleged victim and/or alleged abuser has a prior history of reports. The clock is now running because the law requires that the CPS investigation be concluded no more than 45 days from the date the complaint number is issued. Any person who is the subject of a report is notified in writing of the general nature of the report as soon as possible at the beginning of an investigation. The identity of the person (*i.e.*, dental professional) making the report is not divulged.

Immediate contact with the child is attempted. A site visit is made and the child is talked to by the CPS worker. The parents need not be notified about this interview beforehand, but are informed afterwards. The CPS worker observes the child for signs of abuse or neglect. After this interview the parents and/or the alleged abused are interviewed face to face. Arrangements for a medical or psychological examination of the child may be made. Depending on the facts revealed, the CPS worker may also talk with other people who know about the child's care, such as doctors, teachers, other relatives, etc. No one will know of these interviews except the people involved. Interviews with, or observations of, other children in the care of the alleged abuser may also be done.

The course of the investigation and actions taken by the CPS workers can vary widely. An investigation will be decided as 1) Founded 2) Reason to suspect or 3) Unfounded.

If a home situation is *founded* and deemed immediately dangerous to the child, the CPS has the authority to make an *emergency removal* of the child at the initial contact. Within 72 hours a hearing must be held at the Juvenile Court where the parents then have the right to be heard. The short and long term decisions regarding the child's safety and best interest will likely involve an on-going participation by CPS and additional court hearings to insure the rights of all parties involved. Witnesses may be asked to testify and the person (*i.e.*, dental professional) making the original report could be called. Thorough charting by the dental professional helps to substantiate evidence. Photos, x-rays and progress notes of physical and behavioral findings can be pertinent.

Investigations that are founded may also be of minimal or moderate levels of concern regarding abuse or neglect. Ignorance or lack of resources often contribute to a reported situation. The family, when approached, might be very willing to work with CPS in alleviating harmful behaviors or circumstances. Cases such as these might become on-going in nature. The families are counseled closely by CPS and services are provided through available agencies. Services accessed might be:

•individual or family counseling
• parenting classes
• health services
• heating oil programs
• food, clothing or shelter services
• alcoholics anonymous/narcotics anonymous

Temporary placement of the child may be needed intermittently and involves foster care services. Assessment and actions taken by CPS are ultimately to advocate for the child and preserve the family.

Records of *founded* investigations are kept by both the local department and the State Child Abuse and Neglect Central Registry for 3 to 18 years, depending on the seriousness of the situation.

An investigation may conclude a *reason to suspect*. This type of situation may be monitored by CPS on an on-going basis. Supportive services may or may not be offered or utilized by families. Intervention by CPS might eventually be required as situations evolve. These cases are kept on the State Child Abuse and Neglect Central Registry for one year.

Unfounded investigations are kept on file for 30 days and then destroyed. The alleged abuser can request that the files be kept and in these cases the records are kept for two years. Supportive services may be offered for families in unfounded cases as well.

After an investigation is concluded the subject of the original report may ask to see a copy of their personal information that is a part of the record. The request may or may not be granted depending on what is felt to be in the best interest of the child and family. Denied requests may be appealed through the courts. The person (*i.e.*, dental professional) making the original report is not informed of the result of the investigation due to the confidentiality rights of the parties involved.

Dental professionals, as well as other health care providers, teachers and day care workers are mandated by law to file reports in suspected cases of child abuse and/or neglect. Failure to report can result in fines of not more than $500 for the first failure. Subsequent failures to report can result in additional fines of not less than $100 nor more than $1,000. Ethically, dental professionals have a social responsibility to notify authorities in suspected cases of child abuse or neglect. Hopefully, this brief overview of the CPS investigation process will help dispel any fear and anxiety regarding "getting involved."

Editor's Comment

This issue inaugurates our abstract series. Periodically, post-doctoral students of different departments of the Medical College of Virginia School of Dentistry will review the literature of their respective disciplines and briefly summarize those articles most relevant to daily general practices.

We begin the series with four articles abstracted by the graduate students of Pediatric Dentistry. *The Virginia Dental Journal* is grateful to our school, to these graduate students and to the Director of the Graduate Program in Pediatric Dentistry, Dr. Arthur P. Mourino.

Subsequent issues will include abstracts from other departments.

Abstract of Sedative Agents

Houpt M: **Project USAP the use of sedative agents in pediatric dentistry: 1991 update.** Pediatric Dentistry 15:36-40, 1993

Abstract:

In 1991, all members of the American Academy of Pediatric Dentistry were surveyed to update the use of sedative agents by Pediatric Dentists. All 2,532 members of the Academy were mailed questionnaires, of which 1,497 responded. Practitioners were questioned regarding the frequency of use of sedative agents and the nature of patients receiving sedation. In addition, they were questioned on the methods used for monitoring patients during treatment and reasons, if any, for changes in sedation use during the past two years. A separate survey was conducted of the directors of all 55 postdoctoral pediatric dentistry programs, of which 46 responded.

Both surveys found wide differences in sedation use between different residency programs and between different practitioners. Frequent users of sedation (greater than once a day) were located more in the South/Southeast, with the least sedations being performed in the Northeast.

Almost 2/3 of the sedations were done by just 12% of the practitioners. Over 1/2 of the practitioners said that they had not changed the frequency of their sedations in the past two years. Nearly a third, however, reported a decrease in sedation use and only 12% reported an increased use.

With regard to monitoring of sedation patients, only about 1/2 use a precordial stethoscope and only 1/3 took blood pressure, but 2/3 use a pulse oximeter.

The results of the program survey found that there was a very broad range in the sedation experiences for the postgraduate trainee. On average, about 10% of patients treated by residents receive nitrous oxide alone. About 6% needed sedation with something other than nitrous. The most common drug combination was chloral hydrate and hydroxyzine supplemented with nitrous, although oral Diazepam supplemented with nitrous was also very frequently used.

Comparing the 1991 data to the 1985 data, the author found that the average number of sedations per practitioner dropped from 30 in 1985 to 22 in 1991. Also the percentage using sedative agents twice or more in a day dropped from 6% to 3%. Training programs also showed a decrease.

Although it was beyond the scope of this paper to identify specific reasons for the decrease in sedation practices, the author speculates that influencing factors would include the Academy's guidelines for conscious sedation, increased costs of malpractice insurance, and new state regulations.

Lee Baker, D.D.S.

Abstract of Mandibular Anesthesia

Donohue D, Garcia-Godoy F, King D, Barnwell G. **Evaluation of mandibular infiltration versus block anesthesia in pediatric dentistry.** Journal of Dentistry for Children 1993; March-April: 104-106.

This study was conducted to compare the clinical effectiveness of the mandibular infiltration versus the mandibular block for the operative and surgical treatment of primary molars.

Eighteen children, ages six to nine, who required bilateral identical treatment on primary mandibular molars were selected. Nitrous oxide and a topical anesthetic were used prior to both techniques. Both injections utilized a 27 gauge needle to administer 2% lidocaine with 1:100,000 epinephrine. In the infiltration technique the anesthetic was placed in the bottom of the sulcus and in the mesial and distal papillae of the primary tooth being treated.

Bilateral identical procedures were performed on each patient during the same appointment by the same operator. The procedures included amalgam restorations, stainless steel crowns, pulp therapy and extractions.

Upon completion of treatment the patient rated the level of discomfort for the injection and the procedure. The operator rated the patients' exhibited level of discomfort for the injection and the procedure.

Statistical analysis (paired t-test) indicated there was no significant difference between the block and infiltration for any of the factors evaluated. The study confirms a previous one by Garcia-Godoy demonstrating that satisfactory anesthesia for the primary mandibular teeth of children can be obtained with the infiltration technique.

Susan M. Maurer, D.M.D.

Abstract of Apthous Ulcer

Jasmin, Jean R.; Muller-Giamarchi, Michele; Jonesco-Benaiche, Nicole: **Local treatment of minor apthous ulceration in children.** J Dent Child, 59: 26-28, Jan-Feb 1993.

One of the most common oral lesions in children is aphthous ulcer. They are divided into two groups: major and minor, according to the the size, depth and duration of the lesion. Minor aphthous ulcers usually occur in the superficial layers of the nonkeratinized oral mucosa, namely the buccal mucosa, buccal and labial vestibules, margins of the tongue and floor of the mouth. Major aphthous ulcers occur in the same areas but they could also occur on the soft palate and pharynx. The major is a more severe form that causes necrosis of the deeper muscular or glandular layers and persists for a longer time.

The etiology of recurrent apthous ulceration is controversial but some exogenous and endogenous factors have been associated such as: trauma; neutrophil dysfunction; immunological factors, both cellular and humoral; hereditary predisposition and deficiency disorders.

Topical treatment has been used to relieve pain and improve the clinical condition while systemic treatment is used to prevent recurrences. Ideally, isolation of the ulcer from the oral environment is the best way to prevent secondary infection, restore the epithelium and reduce healing time.

Tetrycycline mouthwash, topical corticosteroids and adhesive topical preparation (Kenalog in Orabase) have been used as treatment, but none of these treatments relieves pain quickly.

A cyanoacrylate adhesive* has been used to treat minor aphthous ulcers. This surgical glue covers the aphthous isolating the ulcer from the oral environment and relieving pain within 2-5 minutes. The healing time is reduced to five to seven days.

*Surgical Aron Alpha S-2. Cyanoacrylate adhesive, Toagosei Chemical Industry Co. Ltd.

Elaine S. Martinez, D.M.D.

Abstract of Traumatized Primary Incisors

Holan G, Topf J, Fuks AB. **Effect of root canal infection and treatment of traumatized primary incisors on their permanent successors.** Endod Dent Traumatol 1992; 8: 12-15.

This retrospective study was conducted to evaluate the effect of trauma, root canal infection and treatment of non-vital primary incisors on their permanent successors. The treatment of non-vital primary anterior teeth has been, and still is, a controversial issue.

A total of 115 children, aged 8-12 participated. Clinical and radiographical examinations of 117 central incisors were made. The teeth were divided into three groups, as follows:

Group A - 29 permanent incisors whose primary predecessors were traumatized, endodontically involved and endodontically treated.

Group B - 29 permanent incisors whose primary predecessors were traumatized, endodontically involved and extracted or left untreated.

Group C - 59 permanent incisors intact and no history of trauma.

The teeth were clinically examined for 1) hypocalcifications, white or yellow discolorations 2) hypoplasia, including changes in the facial contour of the teeth, a) mild, where all defects extended less than 3 mm in diameter, b) severe, where all defects extended more than 3 mm in diameter. They were radiographically examined for presence of disturbances in root development.

Statistical analysis (chi-square test) indicated that there was significant difference in Group A and the other two groups. The incidence of defects in Group B (traumatized, extracted or untreated) was similar to that found in Group C (no history of trauma). In Group A (traumatized, endodontically treated), the incidence of defects was two or three times higher than in each of the other two groups. No disturbances in tooth development were observed in any radiographs and severe hypoplastic defects were not found.

Despite the results, the authors support preserving non-vital traumatized primary incisors by endodontic treatment to avoid possible complications associated with premature extraction of a primary incisor.

Anna-Maria Boggs, D.M.D.

Contract Analysis Service by ADA

With the increase in managed care organizations in Virginia, dental providers are increasingly being asked to sign contracts with PPOs, HMOs, etc. In an effort to help members of our Association evaluate these contracts, the ADA provides a contract analysis service.

If you are contemplating contracting with one of these organizations, you should take advantage of this free ADA membership service. Prior to signing the contract, send it to the VDA office. The contract will be sent to Chicago for analysis by one of the ADA attorneys. The analysis will be sent back to VDA and then to you. Thus, you and your attorney will be better prepared to negotiate the terms of the contract and make a sound business decision.

By taking advantage of this service, the entire membership benefits. A copy of each analysis will be kept on file in the VDA office in Richmond, and may be accessed by any of our members. This eliminates the duplication of effort involved when dentists send the same contract to the ADA for analysis.

Utilize this service! It may assist you in maintaining a more healthy practice!

"Hold Harmless" Clauses

Some companies that promote dental insurance ask the dentist provider to sign a contact which includes an indemnification clause. One example is as follows:

Indemnification

Participating Dentist shall indemnify and hold harmless and defend XYZ Company, Inc., its directors, officers, employees and agents from and against any and all claims, damages, fines, penalties, liabilities and expenses (including reasonable attorneys' fees and expenses) arising out of any claimed act or omission by Participating Dentist or his staff, including but not limited to claimed negligence and malpractice and any claimed failure of Participating Dentist to perform any of his obligations hereunder.

Michele Thorne, ADA legal counsel, has provided the following legal opinion about these contract provisions:

This kind of dental provider contract clause is knows as a "hold harmless" clause. The clause is a promise by Participating Dentist that he will (1) pay any losses incurred by XYZ Company, Inc., for claims or lawsuits arising out of Participating Dentist's treatment (2) hire an attorney for XYZ Company, Inc., to defend itself against such claims or lawsuits; and (2) generally hold harmless XYZ Company, Inc.

The Participating Dentist's promise to hold harmless XYZ Company, Inc. could be held to mean that Participating Dentist agrees not only to indemnify and defend, but also to relieve XYZ Company, Inc., of any responsibility for damage or other liability arising out of the treatment.

Consequently, the hold harmless clause may create obligations for which the Participating Dentist would not otherwise be responsible under the laws of his state. In addition, your professional liability carrier may prohibit you from entering such an agreement under the terms of its contract.

If you are considering a contract with a "hold harmless" clause in it, the ADA recommends that you consult your personal attorney and your professional liability insurance carrier *before* you sign the contract.

News from the Division of Dental Health

Virginia State Health Dept.
by Joseph M. Doherty, Director

Our office receives numerous calls from dental offices, patients and the general public regarding the responsibilities of the dentist in matters of infection control. To assist dentists and their staffs the following information may be useful:

It is well to remember that there are four agencies involved with infection control—two federal and two state. The federal agencies are Centers for Disease Control (CDC) in Atlanta and the Occupational Safety and Health Administration (OSHA). On the state level there are the Virginia Department of Labor and Industry, which carries out the functions of OSHA regarding employee safety and the Virginia Department of Environmental Quality, which is responsible for medical waste. To complicate matters further, federal AIDS legislation requires that state health departments certify that they have instituted the Centers for Disease Control guidelines to prevent HIV/HBV transmission from healthcare workers to patients by the Fall of 1992. The Virginia State Health Department, in turn, has an agreement with the Virginia Department of Health Professions making it responsible to insure that the CDC guidelines are implemented for all health professionals under their jurisdiction.

Then, in 1993, the General Assembly modified Chapter 32.1 of the Code of Virginia regarding "deemed consent." It states that any patient or health professional directly exposed to the body fluids of either the health professional or the patient "shall be deemed to have consented to testing for infection with human immunodeficiency virus or hepatitis B or C viruses."

As to questions that arise regarding, "What should I be reading or have in my office to explain all this?", I would recommend the following:

1) The latest copy of CDC's Morbidity and Mortality Weekly Report issued on May 28, 1993. It is Volume 42, No. RR-8 entitled: *Recommended Infection-Control Practices for Dentistry, 1993*. It is an update of an earlier report with the same title that was issued on April 18, 1986. This can be obtained by calling 404-639-8376 or by writing Centers for Disease Control and Prevention, Division of Oral Health, Mail Stop F10, 1600 Clifton Road, Atlanta, GA 30333.

2) The ADA's *OSHA Compliance Checklist for the Dental Office*. This was distributed to all ADA members through the ADA news. It is still available to members by calling 1/800/947-4746. Ask for code #L200. The cost is $5 plus $3.75 for handling.

3) A copy of *Regulated Medical Waste Management Regulations VR 672-40-01*, issued June 30, 1993 by the Waste Division of the Department of Environmental Quality of the Commonwealth of Virginia. This can be obtained free by calling Ms. Linda Walker at 804/371-0525.

To assist with the "deemed consent" issue, the Bureau of STD/AIDS of the State Health Department will be producing a poster, approximately 8" x 11", suitable for hanging in your office, which will explain this law. It may be obtained by calling the AIDS Hotline, 1/800/533-4148.

I hope this information will be helpful and if you have any questions, please call the Division of Dental Health at 804/786-3556.

MCV News

by Michael V. Dishman, DDS

To start our new year, we welcome several new faculty to various departments in the School of Dentistry: Endodontics-Dr. Ellen Byrne; General Practice-Drs. David Sarrett (Chairman), Francis Robertello, Kimberly Robinson and Mick Whitehill; Periodontics-Dr. Mary Hegarty; Prosthodontics-Drs. James Coffey and Thomas Lynde. The School is fortunate to have these fine additions to our faculty.

Continuing our efforts to profile the individual departments within the School of Dentistry, we feature here the Endodontic Department. On July 1, 1993, this department was once again back to full strength with four full-time faculty members. B. Ellen Byrne, DDS, PhD, became full-time on July 1 and will serve as the Director of Clinical Endodontics. She joins very capable faculty members Dr. Neil Dodds, Director of the Postgraduate Endodontic Residency Program, and Chin-Lo Hahn, DDS, PhD, Director of Endodontic Research. Dr. Gary R. Hartwell serves as the Chairman of the Department, a position to which he was appointed on July 1, 1992.

The dental students continue to graduate with a good basic understanding of the philosophy and management of

(Continued on page 34)

Component News

COMPONENT I
Tidewater Dental Association

Dr. Robert M. Rubin
Associate Editor

The Spring meeting of the Tidewater Dental Association will be held on March 24 and 25 at the Marriott Hotel in Norfolk. Dr. Richard Elzay, formerly at MCV, now Dean at the University of Minnesota, and Dr. Karl Leinfelder of the University of Alabama are the featured speakers.

Tidewater is pleased to host the 1994 meeting of the Virginia Dental Association in Colonial Williamsburg, September 22-25. Dr. Andrew "Bud" Zimmer, General Chairman, and his committees are planning to make this an extra special meeting. Plan to attend.

We are proud that three of our members, Dr. Calvin L. Belkov, Dr. Jack W. Atkins and Dr. Eugene L. Kanter were recognizeed by the ADA for their volunteer service in foreign countries during 1993.

Also, congratulations to Barry Einhorn and Jack Kanter, who were elected fellows of the American College of Dentists at the recent ADA meeting in Orlando.

President Bill Higinbotham announced the selection of the Component Nominating Committee: Pat Barham, Larry Cash, Jerry Clarke, Barry Einhorn, Mannie Michaels and Bud Zimmer. They will bring in a slate of officers to be voted on in August at our annual meeting.

Dr. Eddie Myers has endowed a chair in dentistry at MCV. His generosity culminates a lifetime of giving to MCV.

COMPONENT II
Peninsula Dental Society

Jeffrey N. Kenney
Associate Editor

Lots of exciting things are happening as the year moves on. Congratulations are in order for several of our component members. Dr. Bruce DeGinder and Dr. Richard Barnes were elected as ADA Alternate Delegates at the 1993 VDA Annual Meeting. Dr. Ron Tankersley was recently appointed Chairman of the ADA Council on Dental Benefits Programs. This Council formulates official ADA policy relating to insurance issues and directs National Peer Review and Quality Assurance. Dr. Tankersley is also Chairman of the ADA Committee on the Code, which oversees the formulation of dental procedure codes. We are proud to have these representatives from our Component so active at the national level.

The VDA Leadership Conference was held in Wintergreen last November. Dr. Larry Sabato, well-known political scientist from UVa, gave those attending an excellent perspective on current political events. In addition, Dr. Ron Tankersley spoke on current healthcare reform and insurance issues. Anyone with insurance questions or concerns is encouraged to contact Dr. Tankersley.

Our Component welcomes our newest member, Dr. Ross Epstein, a 1992 MCV graduate practicing General Dentistry in Kiln Creek.

Our January 10 meeting topic was "Risk Management." The next general membership meeting at Kiln Creek will be on March 14. The topic for the evening will be "CAD/CAM Techniques" and we will also have a legislative update. All members are encouraged to attend.

COMPONENT III
Southside Dental Society

H. Reed Boyd, III
Associate Editor

Members of Component III have been busy as usual during the holiday seasons and continued so into the New Year 1994. If this trend continues then a lot will be accomplished by our Component this year.

Back in September at the Annual VDA Meeting, several of our members were recognized for their many years of long and dedicated service. Dr. Tom Fitzgerald, Dr. Warner Ball and Dr. Earle Strickland all received their certificates marking **fifty years** of service to dentistry from the VDA. What outstanding careers and what dedication to the profession these men have shown. We should all be so fortunate! Many thanks; you are tremendous examples for the rest of us to try and follow!

Dr. Robert Leigh Grossmann, a Petersburg orthodontist, has obtained Diplomate status from the American Board of

Orthodontics. This represents another example of dedication to our profession. It requires many hours of study and hard work to achieve this designation.

Dr. "Winks" Alexander has joined the Component II hole-in-one club. He aced the Par 3 fifth hole at the Country Club of Petersburg. "Winks" has had a long and storied career in golf and I am sure that this is just his most recent hole-in-one, not his first.

Our Component held several meetings through the winter. We met in January with our spouses for our annual social gathering. I wish more members would take part is this fun event and that we would have more of them. It is such a pleasure getting together and having the fellowship that comes from our common bond. Our Business Meeting was held in February and plans were laid for the rest of this year. We are planning a continuing education course for the Spring. Dr. Bill Stroup is scheduled to be our speaker. Watch your mail in the coming weeks for an announcement and registration form for this course, which is scheduled for April.

In the last issue of thie *Journal,* I reported that Dr. Ron Davis (MCV '80) had surgery to remove a tumor from his brain. I am happy to report that the tumor was successfully removed with minimal complications. Ron underwent surgery in December to correct those complications and should recover nicely. Ron is in Whiteville, NC, and I am sure he would love to hear from all of you. I can supply you with his addresss and phone number or you can call Whiteville information.

Congratulations to all of those who have achieved the outstanding designations and accomplishments I have mentioned. I hope they will serve as examples to the rest of us to continue to improve ourseleves and, therefore, our profession and our lives.

COMPONENT IV
Richmond Dental Society

Edmund E. Mullins, Jr.
Associate Editor

There is light at the end of the tunnel. Winter won't last forever—it just seems that way. Springtime, with all the good things it brings (including trout fishing) is just around the corner.

The Richmond Dental Society has a series of outstanding speakers at our upcoming meetings. You are invited to attend any or all of them. In February Dr. Michael Petrizzi will speak on "Sports Medicine and Proper Training." In March Dr. Alvin Kagey will bring us up to date on "Forensic Dentistry."

In April Dr. Graham Patrick from MCV will present a "Pharmacology Update." Our May meeting will be a family outing. Golf and tennis will be featured in the afternoon, and in the evening, Mr. Ed Clark will present his program on "Virginia's Endangered Wildlife."

Dr. Al Stenger and the Dental Care Delivery for the Elderly, Indigent and Handicapped Committee have a drive underway to have members of our Society pledge 1,000 hours of volunteer dentistry at the Crossover Health Center. It is a great project to show our commitment to serving those in our community who need our talents but can't afford even basic care.

Congratulations to Dr. Kit Tucker, who was recently married to Bob Sullivan. And can you believe Buddy Counts ran his first marathon? I personally saw him cross the finish line!

Our member Dr. Gordon Prior ran a very strong campaign in the Fall for the House of Delegates. He just missed. Thanks, Gordon, for caring enough to become involved in the political process.

We welcome the following new members to the Richmond Dental Society: Drs. Charles Adkins, Jr., Katryna S. Golian, Melinda W. Robertson, Paul D. Harrey, Robert B. Neighbors and Chad M. Van Scyoc. I look forward to your becoming an integral part of our component.

COMPONENT V
Piedmont Dental Society

Edward P. "Chopper" Snyder,
Associate Editor

Is everyone tired of the wintry weather yet, the messed up schedules and having school aged children at home? I hope Spring is just around the corner.

Speaking of Spring, the Piedmont Dental Society will have our Spring meeting in Lynchburg on Friday, April 22, 1994. Please note that the hotel name has changed and is now the Lynchburg Holiday Inn Crown Plaza (formerly the Radisson Hotel.) The number for reservations is 1/800/ HOLIDAY. Our speaker is Dr. W. Charles Blair of Blair and McGill. His topic will center around "Achieving Financial Independence," with a second

portion entitled, "Dental Practice Transitions." Please mark your calendars now; you and your spouse do not want to miss this program. You should be receiving registration forms in the near future. I look forward to seeing y'all there in April.

COMPONENT VIII Northern Virginia Dental Society

Bruce W. Jay
Associate Editor

Happy New Year from Component VIII. 1994 ushers in many exciting events for our Component. Besides continuing to attract nationally recognized speakers for our continuing education program, we will be inaugurating a non-profit, community-based dental clinic for the indigent. The clinic will be staffed by Component VIII volunteers and is expected to be fully operational by the Spring of 1994.

Our Component mourns the passing of Dr. John A. Bell, Sr. Among his many contributions to organized dentistry, Dr. Bell was a past president of the Virginia Board of Dental Examiners.

MCV News

(Continued from page 31.)

endodontic problems. With the new clinic module/skill development group concept, these students now have the opportunity to expand their horizons by working with postgraduate students on more complicated diagnostic, nonsurgical and surgical cases. Concurrently, we are extremely proud of our postgraduate program in Endodontics. There continue to be approximately 70 applicants each year for the three available positions. The residents are exposed to a strong clinical and didactic experience based on new materials, instruments, techniques and scientific principles.

At the 50th Annual Session of the American Association of Endodontists in May 1993, AAE President Dr. Stuart Fountain outlined the scope and direction of Endodontics as we prepare to move into the 21st century. He stated that endodontists must become proficient in microsurgial techniques, combination clinical treatment procedures, management of orofacial pain, management of all types of tooth trauma, and performing endodontic basic science and clinical research. Many of these challenges are already being addressed by the Endodontic Department at MCV. Dr. Hahn presently has several research projects underway to study the immunologic aspects of caries and of pulpal and periapical disease processes. Dr. Byrne, whose PhD is in Pharmacology, is very interested in endodontic and orofacial pain both from basic science and clinical perspectives. Drs. Hartwell and Dodds are presently in the process of developing a clinical program in microsurgical techniques for the endodontist.

Dr. Hartwell has been interested in the area of tooth trauma for many years and continues to pursue new materials and techniques that will provide better long-term clinical prognosis for all types of trauma cases. Both the faculty and postgraduate students work closely with the general practice and speciality departments at the school to improve the clinical techniques that require a combination of treatment.

The Endodontic Department has a mixture of strong clinical and research faculty that should put MCV on the *cutting edge* of new knowledge and education in Endodontics.

(Continued from page 16)

Table 2

SIGNS AND TESTING FOR SUSPECTED CHILD SEXUAL ABUSE

Conditions or Suspected Act	Physical Sign	Etiology	Testing Procedure	Treatment/Action
Gonorrhea	Pharyngitis or Tonsilitis or Gingivitis	Neisseria, Gonorrhea	Oral swab and culturing on Thayer-Martin or Transgrow Media	Procaine Penicillin G and Probenicid or Tetracycline
Syphilis, Primary	Chancre, Lymphodenopathy	Treponema Pallidum (21 Days) (Postinoculation)	Dark-field micro-scopy VDRL, RPR, ART serologic tests	Benzathine Penicillin G or Procaine Penicillin G or Erythromycin, Tetracycline
Syphilis, Secondary	Lymphodenopathy Maculopapular rash, mucous patch Condyloma lata (skin)	Same as above (2-8 wks postchancre)		
Herpes	Oral and perioral vesicles leading to ulceration	Herpes Simplex Virus Types 1 & 2	Immunologic differ-entiation of Types 1 & 2	Supportive
Venereal warts (Condyloma accuminata)	Papilloma-like lesions on lip, tongue, palate and gingiva	Papovirus	None	Excision at base of lesion
Chlamydia	Conjuctivitis Asymptomatic orally, Pneumonia	Chlamydia Trachomatis	Specialized tissue culture systems	Sulfonamide or Tetracycline or Erythromycin
Orogenital contact	Presence of Physical trauma or pubic hair	Oral penetration	Wet mount micro-scopic examination for motile sperm, air-dried slides of sperm, Acid phosphate Wood's lamp test, Swab area and preserve swab in saline	Supportive

modifies from Cassamassimo, P.; "Sexual Abuse"; Pediatric Dentistry, May 1986, vol. 8

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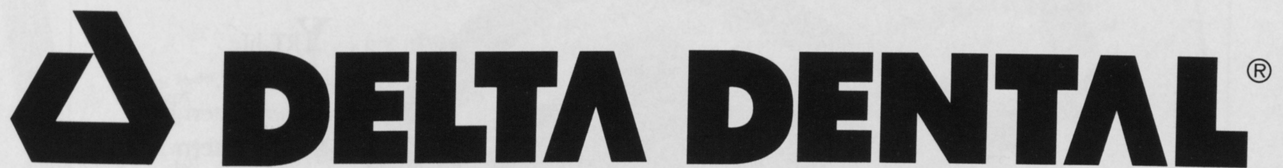

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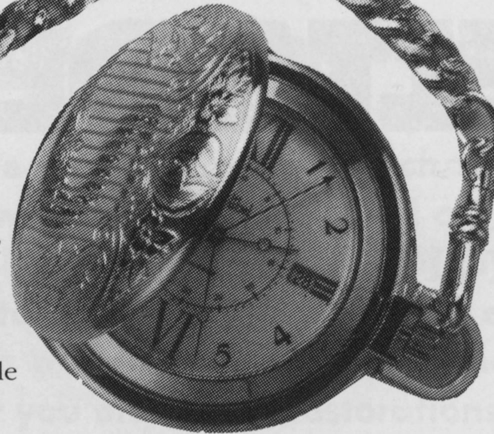

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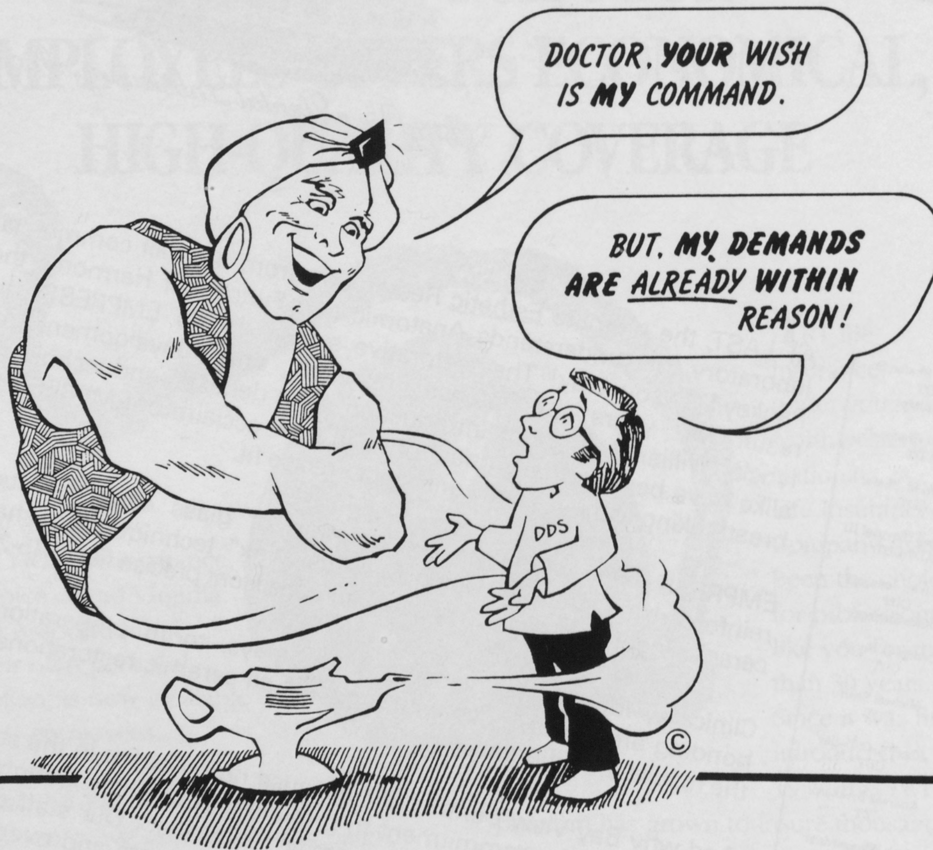

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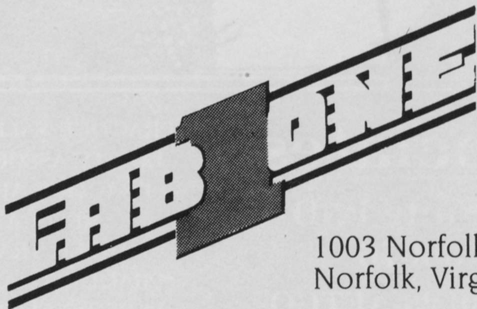

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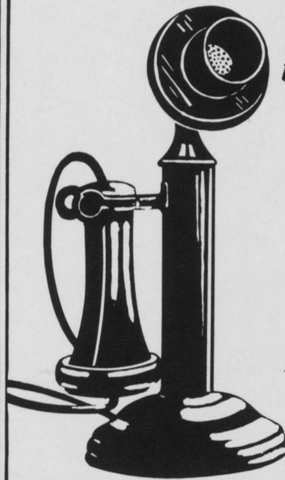

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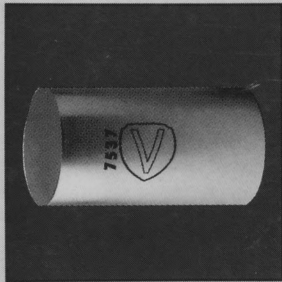

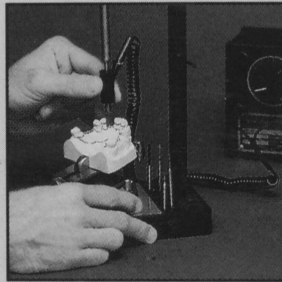
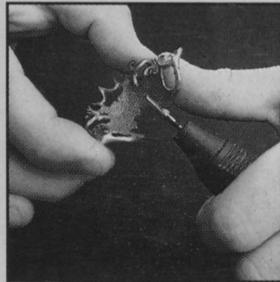
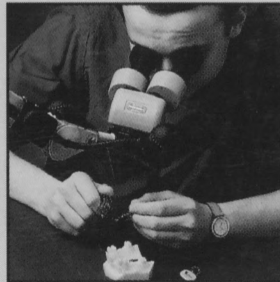
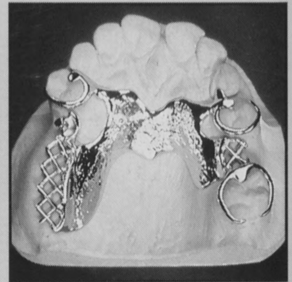

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