light photosensitivity these patients experience for four to six weeks post dye injection, therefore, patient teaching is an extremely important aspect of this modality. Teaching begins in the surgeon's office when the patient decides to undergo the treatment. The risks and benefits are thoroughly explained to the patient and brochures are given to reinforce this information. Exposure to sunlight could cause second or third degree burns.

Dark sunglasses should be worn for the first week following injection. Once home, the patient must cover windows that allow direct sunlight in the room where they will be. They are told to only go outside in the very early morning or after sundown. Should the patient have to venture out during the day, all exposed skin must be covered. Long sleeved clothes, gloves, hat, long pants, sunglasses and sunscreens with high SPF rating should be worn. When riding in a car, in daylight hours, the patient should sit in the backseat and cover the windows. Exposure to a very bright reading light for more than an hour, could also cause burns.

After four weeks, the patient is instructed to carefully test a small area of skin on the back of their hand for 10-15 minutes only. If no erythema or edema occurs over the next 24 hours, the patient is encouraged to go outdoors for short periods over the next week and a half and gradually increase the time. During the summer, light precautions should be maintained for up to eight weeks.

Lasers in Otology

Lasers have been used by otolaryngologists for about 15 years. The $C0_2$ was the laser they used to treat laryngeal, vocal cord and nasal pathology. The cumbersome articulating arm of the laser when attached to the microscope, and the slightly inaccurate aiming beam, slowed down the surgeon's expansion into the sensitive structures of the middle ear.

In the late eighties, the KTP laser, with its fiberoptic delivery system, provided the ENT surgeons the accuracy that they required. Today, tympano mastoid procedures and stapedectomies are being performed using the laser.

Laser stapedotomies are being performed on an outpatient basis. The laser is employed along with hand held instruments. Trauma and bleeding are reduced and the patients experience little or no vertigo and are released home a few hours post-operatively.

The patient receives I.V. sedation and a local anaesthetic. A tempanomeatal flap is turned in the conventional manner and the oval window is exposed.

The laser is used to vaporize the stapedial tendon and the posterior crus. Bone char is suctioned from the surgical field and the incudostapedial joint disarticulated. If the anterior crus is visible, it is vaporized and the substructure of the stapes is removed. Six to eight laser firings are grouped circularly on the footplate, creating a fenestra. Bone is removed by a fine suction tip and rasp. A piston is inserted into the fenestra and secured to the incus. The area is then sealed with tissue. The incision is closed and packed in the traditional manner.

Considering the foregoing discussed procedures it can be appreciated that laser surgical treatment modalities are indeed advancing. New applications, wavelengths, and surgical skills are constantly developing. The less invasive surgical treatments are very appealing to patients, surgeons and health care facilities. It is a very exciting area of surgery in which to be involved.

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Laser Nursing - A Perioperative Challenge

By Penny J. Smalley, R.N.

Laser technology, once a dream of scientists and visionaries, has now become an accepted method of surgical and medical treatment in hospitals, clinics, and private offices, around the world. The technology has had an impact on every clinical discipline, including general surgery, otolaryngology, dermatology and plastic surgery, gynecology, neurosurgery, gastroenterology, urology, ophthalmology, podiatry, physical therapy and oncology.

The explosion of high technology in the clinical setting has created the need to redefine the traditional role of the perioperative nurse. The expanded role focuses on a combination of standard nursing practice - evaluation of patient's needs, and implementation of care planned to meet those needs - with an expanded scope of practice focused on technical, operational, and administrative skills. The laser nurse specialist is challenged to incorporate a whole new vocabulary and knowledge base into an already complex practice. That requires training, practice, and dedication, often uncompensated, and rarely recognized. However, the excitement of being part of a rapidly growing, dynamic field of medicine, does serve to reward the nurse who perseveres and takes advantage of his/her opportunity to learn and grow professionally.

In order for a hospital to maximize its acquisition of laser technology, it must first establish organized administrative governance. Lasers affect every aspect of providing care, from clerks to professional staff, and in order to manage it, a laser committee must be formed. The mission of the committee, is to provide guidance and overall supervision of lasers in the facility. Since laser surgery is a collaborative, multidisciplinary effort, the committee should be comprised of: physicians from every clinical discipline using or interested in using lasers; the operating room supervisor; endoscopy or out-patient supervisor (if lasers will be used in these areas); biomedical engineering; risk management; the laser safety officer; hospital administration; anesthesia; planning and development department; and, continuing education (both medical and nursing).

Laser committee meetings should be scheduled at regular times, with a written agenda, and can address many topics such as: credentialing of medical staff, education and training of nursing staff, acquisition of equipment and instrumentation, new procedures, case reviews, safety audits, development of documentation methods, quality assurance monitoring, engineering concerns, clinical research programs, patient education materials, evaluation of reference materials, and updating of policies and procedures. The chairperson is usually a physician, and co-chair, the laser safety officer. Once a laser program is well established (one year average for start up), the committee meets as needed, with a minimum of quarterly, for review.

Once the committee is functioning, the program plan can be developed. This includes a time line that allows for proper training before the laser is put into clinical use. Educational needs of both medical and nursing staff must be evaluated, and classes must be scheduled. Operational inservice is provided by the manufacturer, but does not include the fundamental theory of laser technology. It is essential for everyone who will work with lasers, to attend formal classes that present: laser physics, tissue interactions of all the commonly used wavelengths, instrumentation and delivery systems, safety, case management, and clinical applications.

Laser education can be obtained in several ways, depending on the facility and its needs. Continuing education courses are available periodically, in the

Ten Point Laser Program Review

1. Organizational structure
   a. Laser committee membership / leadership
   b. Meetings regular / preset agenda
   c. Has the committee dealt effectively with problems
2. Staffing
   a. Laser Safety Officer position established and defined
   b. LSO effective in dealing with problems / concerns
   c. Expansion of position and /or alteration of duties needed
3. Equipment
   a. Timely repairs and PM
   b. Additional lasers / instrumentation needed
   c. Smoke evacuation up to date / additional needed
   d. Safety equipment in good repair / additional needed
4. Policies / Procedures
   a. Annual review of current P/P
   b. Updates complete
5. Quality Assurance
   a. Documentation reviewed
   b. Incidents reported
   c. Statistics
   d. Problems identified / Action taken
6. Continuing Education
   a. Medical staff - new wavelengths/procedures
   b. Nursing staff - annual updates/on-going inservice
   c. Additional staff to be trained
   d. Meetings/professional organization activities
7. Recredentials
   a. Policy established
   b. Implementation
8. Marketing
   a. Strategies
   b. Physician based/community based
   c. Telemarketing
   d. Measurement/data collection
9. Expansion
   a. New procedures
   b. New MD's recruited
   c. Clinical research
10. Further Program Review
    a. Monthly Laser Committee meeting reports
    b. Quarterly/Annual review

United States and Canada, providing the required didactic and laboratory experiences. Appropriate courses will be sponsered by and academic institution (not a commercial enterprise) and will be taught by nationally recognized leaders in the field. Both nursing and medical/surgical courses must include hands-on labs with appropriate tissue models, so that the surgeon can learn to apply the laser safely. Fees for these courses vary, as does the quality, and should be carefully evaluated by the laser committee.

On-site courses are also available. These are beneficial if a large number of people need to be trained, and the facility and administrative support is available. These courses cost less than off-site courses, and are valuable because they utilize the equipment that will be used in the facility. Physicians and nurses do not have to travel and take time away from practice, and instruction is more personalized. On-site courses can be planned with the help of several well established resource companies and consultants. Laser organizations such and the American Society for Laser Medicine and Surgery, Laser Institute of America, and professional specialty organizations, can provide references.

There are no national, international, or professional standards set for educational criteria. Credentialing and certification remains the responsibility of each facility, and is usually based on consensus standards, developed over the past few years.

The laser safety officer should receive intensive training, and participate in continuing education programs for the nursing and support staff. He/she will function as the program coordinator, as well as operational manager. He/she has clinical, administrative, and technical responsibilities, and should be a person who will be available, in the operating suite whenever the laser is in use. This does not mean that the LSO is the person designated to operate the laser for surgery, but is there to back up the laser nurse, trouble-shoot, and assure safe and appropriate laser use. The LSO is often a nurse, but can be an engineer, or other specifically trained person.

Policies and procedures must be written and approved before the laser is in clinicial use. These should address all aspects of laser use, including: credentialing, nursing certification, job description of the LSO, equipment maintenance, operation of equipment, anesthesia and airway management, quality assurance, documentation, ocular safety for patient and staff, control of access, hazard determination and control measures (flammability, electrical, reflectivity), *(cont. p.18)*

laser plume management, and care planning. Sample policies will be found in the appendix. They are intended as guidelines, and should be used to help format individual facility's policies.

Standards, policies, and applications are constantly changing, and it is mandatory for the laser safety officer or other designated person to keep up with those changes if the program is to continue to grow and function safely. Journals, and other laser publications (listed in appendix) can provide current information.

Laser Safety Officer - Position Responsibilities

As a manager, the Laser Safety Officer:

1. Writes, reviews, and updates all policies and procedures.
2. Participates actively in equipment evaluation procedures.
3. Co-chairs the Laser Use Committee.
4. Performs documentation audits.
5. Monitors and reports on quality assurance of the program.
6. Establishes and maintains a resource centre.
7. Contributes to creation of patient education materials, and makes physician office visits for direct marketing.
8. Joins professional organizations and keeps the Laser team current with new technology and applications.
9. Reviews and updates all aspects of the program, with respect to new standards and regulations.
10. Directs continuing education programs, staff orientation, and physician inservice activities.
11. Contributes to clinical research projects.

As a clinical expert, the Laser Safety Officer:

1. Supervises daily operations.
2. Conducts inservice and continuing educations programs.
3. Monitors quality assurance, and incident reporting.
4. Contributes to the Laser Use Committee activities.
5. Functions as a liaison between physicians, nurs ing staff, vendors, and hospital administration.
6. Joins and participates in professional organizations, in order to maintain and expand clinical expertise.
7. Supervises equipment evaluation procedures.
8. Encourages and supports the Laser team.

Nurses working with laser patients have an added responsibility for developing and implementing patient care plans that address their specific concerns and needs. Most patients have preconceived ideas about laser treatment - not all of which are accurate, and it is important for the nurse to be able to sort out myth from fact, and provide realistic answers to questions.

While most patient preparation occurs in the doctor's office, the perioperative nurse must reinforce and reassess that preparation at the time of surgery. If the patient is awake during surgery, anxiety levels can be very high, and most verbal instruction will be blocked. An effective educational tool for pre-surgical consultation, is a photo book showing pictures of both nurses and patients wearing safety goggles, the danger sign on the door, the laser equipment, laser impact on a piece of fruit showing plume, and the inside of the operating room with the equipment in place. Environmental influences such as sights, sounds, and smells are very frightening to the unprepared patient. If they have the opportunity to see photos ahead of time, they will be better prepared, more compliant, and there will be less risk of complications. Overall satisfaction improves for both patient and care givers.

Perioperative laser care planning should also include an overview of discharge plans, since many laser patients require at home follow-up and office appointments. The patient's care provider should attend the discharge consultation, and should be given a copy of written instructions summarizing required steps in follow-up care. It is important to provide a laser nurse's telephone number, because questions often occur after the patient leaves the hospital, and no longer has immediate access to information.

The first decade of laser technology in surgery was concentrated on developing safe, effective, and viable clinical applications. Nurses were involved in learning instruments, and operational skills necessary in surgery, as well as the rationale for the use of the technology. There was a significant change in the laser nurse's perioperative role, with expanded responsibility, and increasing challenges. Now, as the second decade begins, nursing has shifted it's focus beyond the immediate concerns of equipment, and it's operation. Program planning and development, administrative strategies, participation in clinical research, and new technology, have all affected the profession.

The network of laser nurses now encompasses every state in the United States, every province in Canada, and many countries around our rapidly shrinking world. Information is readily available, and nurses have increasing opportunities to contribute to the growth and enhancement of laser nursing as a recognized specialty within the nursing profession.

Ocular Safety

Purpose : To prevent ocular injuries to patients receiving laser treatment, or to personnel working in the laser room.

Policy : All personnel will adhere to eye protection procedures during all laser applications. Service personnel, biomedical technicians, and those involved in demonstrations and equipment evaluations will follow all ocular safety procedures whenever a laser is in operation in this facility.

Procedure:

1. Appropriate eyewear will be worn by everyone in the room while a laser is in operation.

2. Personnel will wear comfortable and properly fitted eyewear, labeled with wavelength (in nanometers) and optical density.

3. All goggles must have side shields to protect from peripheral impact.

4. Contact lens wearers must wear appropriate goggles.

5. Eyewear will be examined prior to use for defects in the optical coating. If scratched or cracked, they must be replaced.

6. All personnel will wear appropriate safety eyewear during all endoscopic, video, and/or ophthalmic procedures.

7. Patients receiving local or regional anesthesia will wear appropriately labeled eyewear while the laser in in use.

8. Patients receiving general anesthesia, will have wet cloth towels placed across the eyes, or will be fitted with properly labeled eyewear. No metal or disposable materials will be placed on the patients face or eyes.

9. The Laser Safety Officer will inspect all safety eyewear monthly, and replace defective goggles filters, and lenses.

Approved:
Date: Date Reviewed:

Appendix - Recommended Laser Program Policies and Procedures

1. Laser Committee - Structure and Function
2. Laser Safety Officer - Job Description
3. Credentials for Medical Staff
4. Education and Training for Support Staff
5. Equipment Acquisition / Maintenance
6. Equipment Operations
7. Medical Surveillance of Health Care Personnel
8. Quality Assurance / Risk Management
9. Anesthesia / Airway Management
10. Ocular Safety - Patient and Personnel
11. Control of Flammability Hazards
12. Controlled Access
13. Electrical Safety
14. Laser Plume Management
15. Patient Education / Discharge Planning
16. Documentation

Controlled Access to the Laser Room

Purpose: To define the area in which controls must be applied, and to describe the control measures necessary in order to maintain a safe treatment working environment for patients and a safe working environment for personnel.

Policy: Lasers will be operated only in areas where traffic flow and compliance with all safety procedures can be controlled and monitored.

Procedure:

1. Regulation *Danger* Laser signs will be prominently posted at eye level on all doors that access a room where a laser will be operated. These signs will state the wavelength and class of laser to be used.
2. Safety goggles of the appropriate wavelength will be placed with each door sign posted.
3. Glass windows will be covered with _____ whenever a fiberoptic laser (Nd:YAG, KTP, Argon) is to be operated. Coverings will remain in place while the laser is operational.
4. Laser keys will be kept in _____ and signed out only by those authorized to do so.
5. All procedures will be followed during service calls, demonstrations, and evaluations, as well as during clinical procedures.

Approved: Date: Date Reviewed:

(cont. p.22)

Laser Safety - Fiber Optic Delivery Systems

1. Only laser trained personnel will operate the laser and it's delivery systems.
2. All policies and procedures will be followed whenever a laser is used.
3. Lasers and accessory equipment will be positioned in the procedure room and checked prior to use.
4. Appropriate eye safety filters will be used with endoscopes, and microscopes.
5. Windows that access the laser room, will be covered completely with shades, blinds, towels, or appropriate filters.
6. Position laser, fibers, smoke evacuation unit, foot pedals, hoses, and cords, for safe traffic patterns in the room.
7. Examine the fiber for breaks or damage of the distal tip, the proximal connector, or along the catheter sheath.
8. Calibrate the fiber according to the manufacturer's directions.
9. Always use appropriate coaxial cooling with a fiber. **Never use gas/air in uterus.**
10. Never fire the laser unless you visualize the distal tip of the fiber, at least one inch beyond the end of the endoscope.
11. Never fire the laser unless you see the aiming beam.
12. Monitor the patient, the equipment, and the environment, throughout the laser procedure.
13. Monitor the fiber for :- distortion of the beam
    - decreased power transmission
    - accumulation of debris on the tip
    - proper handling at all times
14. Never place the fiber directly on paper drapes, or in water for cooling. Wait until tip is cooled (usually 20-30 seconds, but may be longer if contact tips are used).
15. Never use alcohol in the operative field. Fibers may be rinsed in hydrogen peroxide or saline intraoperatively.
16. Always put the laser in standby when not aimed at target.
17. Dispose of fiber, or repolish according to manufacturer's directions, after use.

- Do not reuse disposable fibers -

Laser Plume Management

Purpose: To effectively remove laser plume contaminants from the laser impact site, in order to reduce the risk of transmission of potentially hazardous particulates to personnel in the laser room.

Policy: A laser plume management system, appropriate to the laser wavelength and clinical application, will be employed whenever a laser is in use.

Procedure:

1. Position smoke evacuator, or recirculation unit for closed procedures, in room whenever a laser case in anticipated.
2. Check the operation of the system, prior to the beginning of the case.
3. Install a clean filter on the system, if it has been used_____, or for contaminated cases. (HIV, Herpes, Condyloma).
4. Follow standard hospital procedures for han dling of biohazardous materials.
5. In-line filters with 0.3 micron filtration, will be placed between wall suction and the fluid cannister for: a. suction lines not connected to evacuator
   b. cases producing minimal plume
   c. evacuator fails before or during procedure
6. Distal collection port of the smoke evacuation system must be no more than 2 cm from the impact site.
7. Laser masks (minimum 0.3 micron filtration) must be worn by everyone in the laser room.
8. All tubing, connectors, adaptors, and wands will be changed_____.

Approved:
Date: Date Reviewed:

References, Resources, and Publications

American Society for Laser Medicine and Surgery
2404 Stewart Square, Wausau, Wisconsin 54401
(715) 845-9283 Fax: 848-2943

Laser Institute of America
12424 Research Parkway, Orlando, Florida 32826
(407) 380-1553 Fax: 380-5588
Secretariat for the Ansi Z136.3 Standards

American Board of Laser Surgery
Stanley Stellar M.D. - President
2722 W Oklahoma, Ste 202, Milwaukee, Wi 53215
(414) 643-1066 Fax: 643-5219

(Continued page 25)

Test Firing the CO_2 Laser

Purpose: To determine the operational status, beam alignment, and beam geometry of the CO_2 laser prior to use.

Policy: The CO_2 laser will be test fired on the day it is to be used, prior to a scheduled laser procedure. It will also be tested if it is moved from room to room, or involved in service, demonstrations, or other non-surgical uses.

Procedure:

1. Set a room up according to controlled access procedures.
2. Drape mayo stand with wet cloth towels (no metal exposed).
3. Follow all ocular, flammability, electrical, and other appropriate safety precautions throughout the test.
4. Place wet tongue depressor on wet towel surface.
-Be sure target is placed at the same angle as the laser delivery system (Microscope,handpiece,etc.)
5. Set laser for 5 watts, with single short time exposure.
6. Fire onto the wet tongue depressor.
-Never fire if you do not see the Helium - Neon beam.
7. Examine test spot for alignment and proper geometry.
8. Fire once in all modes on control panel
-continuous wave
-super pulse
-all time exposures, single and repeat
9. Turn off laser, or place in standby if it is to be used right away. Do not leave laser controls while it is in operation.
10. Document test results on log sheet.

Approved:
Date: Date Reviewed:

Author:

Penny J. Smalley, R.N., is the President/CEO, Laser Concepts International, Inc., Chicago, Illinois. Ms. Smalley has consulted in several hospitals in Canada.

(See Laser Survey pages 28 & 29)

Conference Calendar

British Columbia
Operating Room Nurses Group
Provincial Conference,
Hotel Vancouver - Vancouver, B.C.
April 9 - 11, 1992
Theme: "Value, Vision,Venture"
(See page 35 of this issue for details)

The Operating Room Nurses of Ontario
Sponsoring their 2nd Provincial Conference
April 12th-15th, 1992
at the Harbour Castle Westin Hotel, Toronto.
(See page 33 of this issue for details)

Manitoba Operating Room Nurses
meeting jointly with the
Manitoba Association of Post Anaesthesia Nurses
June 7 - 9, 1992 - Winnipeg
(See page 34 of this issue for details)

1993
Quebec City, Quebec
13th National
Operating Room Nurses Conference
June 6th - 11th, 1993 .

Theme: "Global Vision of Care, Guide in the Midst of Automation".

The 1993 ORNAC national conference will be hosted by the Quebec Operating Room Nurses Group.

World Conference of Operating Room Nurses - VIII - September 6-10, 1993
Adelaide, Australia

ORNAC has decided the same mountie shirt and red hatwill be the official Canadian dress at this Australian World conference. The costumes are still available for sale. Announcements will be made in the Journal and Provincial newsletters.

Laser Safety Survey

Introduction

This is the first formal survey conducted by the *Canadian Operating Room Nursing Journal.* The response to this safety survey will have benefits of itself, but will also greatly influence the Journal's decision to undertake a major national survey of operating room departments in Canadian hospitals in the coming months. It is our hope, in collaboration with the Operating Room Nurses Association of Canada to establish a data base of ORs in Canada, which will eventually provide to the Association and the Jouranl information on personnel, equipment, procedures and practices. Therefore, we urge your earliest response whether your hospital is a single laser user or a major laser centre with 10 lasers. Please ensure the Laser Safety Officer or the OR Supervisor in your hospital submits this survey to the Journal. We thank you in advance for your interest and cooperation.

Hospitals have experienced rapid, fragmented growth of laser technology over the past ten years, thus safety standards have been applied with some inconsistencies. Physicians and nurses learn different interpretations of what constitutes proper safety practices, resulting in poor compliance in the operating room, and difficulty in enforcing policy.

Health and Welfare Canada, Canadian Standards Association (CSA) and the College of Physicians and Surgeons of Canada are all working on their own standards of training and practice for the safe use of lasers. CSA Standards will be available in June, 1992.

This Safety Survey was conducted in the United States by Penny Smalley, Pres./CEO, Laser Concepts International, , Chicago, Ill., and was published in the *Journal of Laser Applications*, Winter, 1991. It is reprinted here with minor modifications with the kind permission of the Laser Institute of America.

Please answer all questions as completely as possible by **circling** the appropriate **yes or no**.

Please mail or **Fax** a photocopy of this completed survey (p.28 & 29), along with your comments to:

Laser Safety Survey
Canadian Operating Room Nursing Journal
14453 29A Ave.
White Rock, B.C., V4A 9K8
Fax: (604) 535-9000

1. Does your facility have a copy of ANSI Z136.3 standards? yes no
2. Does your facility follow ANSI Z136.3 standards regarding:
   a. Laser Committee function yes no
   b. Laser Safety Officer job description yes no
   c. Baseline Eye Exams for employees yes no
   d. Eyewear selection and labels yes no
   e. Controlled access yes no
   f. Environmental hazards / controls yes no
3. Do you require safety goggles worn during:
   a. video procedures yes no
   b. endoscopy yes no
   c. ophthalmic procedures yes no
4. Do you post regulation Danger signs on all laser access doors? yes no
5. We have written policies/procedures for the following:
   a. eye safety for patient yes no
   b. eye safety for personnel yes no
   c. controlled access yes no
   d. control of flammability hazards yes no
   e. physician credentialing yes no
   f. nurse/support staff certification yes no
   g. documentation/log sheets yes no
   h. airborne contaminants yes no
   i. operations of the laser yes no
   j. equipment maintenance yes no
   k. airway management yes no
6. Do you have a Laser Safety Officer? yes no
   If yes, the LSO is a:
   a. Nurse
   b. Biomedical Tech
   c. OR Tech
   d. LPN e. other _____
7. Who operates the Laser (RN, LPN, ORT, etc) ?
   _____
8. Do you receive current laser literature:
   a. Clinical Laser Monthly yes no
   b. Laser Nursing Magazine yes no
   c. ASLMS journal yes no
   d. LIA journal yes no
   e. other _____

9. How do you manage laser plume during procedures:
   a. smoke evacuator
   b. in-line filters
   c. laser filter masks
   d. biohazard waste disposal procedures
10. What type of window covering do you use for fiberoptic lasers?
    a. Opaque window shades
    b. green cloth towels taped over windows
    c. blinds
    d. filtered glass or plastic panels
    e. other _____
11. Do you have a dedicated laser operator (3rd person) in the room during laser procedures?
    a. Always b. Sometimes c. Never
12. Have you ever had an incident regarding:
    a. staff using safety eyewear yes no
    b. physicians using safety eyewear yes no
    c. use of wet draping materials yes no
    d. use of standby mode yes no
    e. use of flammable solutions / materials yes no
    f. use of reflective instruments yes no
    g. anesthesia / airway management yes no
    h. mechanical accident yes no
    i. electrical accident yes no
    j. patient burns yes no
    k. staff burns yes no
    l. physician burns yes no
    m. methane gas ignition yes no
    n. accidental activation of laser yes no

    If you checked yes for any of the above, or had incidents not mentioned above, please briefly describe the incident.

    _____
    _____
    _____
    _____
    _____.
13. Do you have a nursing certification process? yes no
    a. classroom lecture yes no
       -number of hours _____
    b. demo / return demo yes no
    c. written exam yes no
    d. skills checklist yes no
    e. preceptorship yes no
       - number of cases _____
14. Who is trained in your facility?
    a. Full staff - number _____
    b. LSO only
    c. Core group - number _____
15. Laser education was provided by:
    a. Manufacturer - _____ CEU's
    b. In-house staff educator - _____ CEU's
    c. Attending outside courses - _____ CEU's
    d. Consultant - on site - _____ CEU's
    e. Video/Correspondence - _____ CEU's
16. Do you have periodic laser updates?
    a. annually yes no
    b. as needed yes no
    c. never yes no
    d. plan to, but haven't yet yes no
17. How would you describe your facility's approach to lasers?
    a. We are a laser center
    b. We plan to become a laser center
    c. Laser is a product line
    d. We offer laser as a treatment option to our patients
    e. other _____
18. Demographics
    a. hospital bed size_____
    b. number of ORs (including cysto and OP)_____
    c. number of lasers: CO_2_____
       Argon_____
       Nd: YAG_____
       KTP_____
       Ophthalmic_____
       Flash pumped Dye_____
       Tunable Dye_____
       Metal vapor_____
       Other_____
    d. number of laser procedures per month_____
    e. number of physicians currently credentialed_____
19. Optional information (please complete if you wish to receive a report of the findings of this survey).
    Name_____
    Title_____
    Institution_____
    Mailing Address_____
    _____
    Telephone_____Fax_____
20. What concerns you most about laser safety in your practice?
    _____
    _____

(Please do not pull-out pages - **Photocopy pages 28&29** and submit to the Journal for tabulation. Watch for the results to be reported in a forthcoming issue.)

Thank you very much for your participation!!!