

Queries received by the Standards Committee



Note to reader: The CAS Standards Committee responds to queries from members in an informal way. The opinions expressed by the author should be interpreted in light of providing guidance and relevant information.

Compiled June 2015

November 2009

Query: C Section and Midwives/Doulas

I am looking for the CAS position, guideline or policy on surrogate pregnancy, specifically the logistics of a delivery. This includes the roles of the various physicians involved (obstetrician, anesthesiologist and/or family practitioner) during both a vaginal and caesarean section. Please address which physician (during a caesarean section under either a regional or general anesthetic, is deemed to have the authority to decide the number of and the identity of the support persons in the OR.

If the surrogate carrier has one support person (who is not an intended parent), would the intended parent(s) be permitted to be present in the OR to observe the birth? If they are not permitted in the OR, are they permitted to wait in a waiting room in close proximity to the theatre?

If there is a disagreement among the medical staff, then who makes the final decision?

Does any physician have the right to decline the intended parents' participation/ observation of the birth in the absence of a medical emergency when legal contracts are in place, particularly since the intended parents become the legal guardians once the baby is born?

Response

The Chairman of the Standards Committee of the CAS frequently receives questions, and responds on behalf of the Canadian Anesthesiologists' Society in assisting in interpretation of the Guidelines

The CAS publishes (and revises yearly) the "Guidelines to the Practice of Anesthesia", a document which is available on the internet "<http://www.cas.ca/English/Guidelines>". This document provides "*...recommendations (which) are aimed at providing basic guidelines to anesthetic practice. They are intended to provide a framework for a reasonable and acceptable standard of patient care and should be so interpreted, allowing for some degree of flexibility in different circumstances...*" You should be aware that these are not rigid "Standards" which are felt to be obligatory, but rather "Guidelines" which are advisory and are meant to be interpreted and applied to each clinical encounter using the professional judgement of the anesthesia practitioner.

This is not a perfectly simple question as there are no hard and fast rules, and some colleagues were polled for their feedback to assist in formulating an answer.

The simple answer is that we do not address this type of question directly, there is no one physician with final "authority" for any one feature of operating room activity as

this is a matter for hospital policy (although specific areas of physician “control” or responsibility must take the position of the involved physician very seriously, and the anesthesiologist is charged with ensuring the safety and comfort of the patient and, to do so, some areas of the OR and the OR experience must come under his/her “control”. In this context, the institution will have to deal with and establish its own "rules" and this should take place under the aegis of the hospital’s OR Management Committee.

Having said that, it is important to recognize that a caesarean section is not a “normal birth” but rather a serious medical intervention associated with the potential for very significant complications and it is not a time or place for vicarious involvement. And, in order to minimize the various risks including infection, there should be no unnecessary personnel in any operation. Specifically, there is no role for any non-medical personnel in an operating room when the procedure is to be done under general anesthesia. Under a regional anesthetic, one accompanying person is typically allowed to help “comfort” the mother during the operation; that person must be selected, educated as to the rights and responsibilities in the OR, and informed that he/she may be required to leave at any time should circumstances necessitate this. This is not an opportunity to “see the birth” but rather a role to be with the mother during this intensely emotional time. It is not expected that there is any role for additional individuals such as “intended parents” in the operating theater under any circumstances, and the involvement of “legal contracts” does not imply any right to involvement in these operative procedures.

In discussions with colleagues, there is general agreement country-wide that this is the overall philosophy, although individual institutions vary their actual practice depending on their specific abilities and needs.

May 2013

Query: Position, Responsibilities in Prescribing Preoperative and Intraoperative Antibiotics and Inserting CVCs into Patients

We have been getting various requests to assume various “responsibilities” and we want to know whether these are valid expectations based on the current standard of care. Based on the current expectations/standards of care:

Is it the anesthesiologist's responsibility to prescribe preoperative and intraoperative antibiotics?

Is it the anesthesiologist's responsibility to insert a central venous catheter (CVC) into patients – vented or not – for ICU because ICU wants one for their care (rather than basing it on need for intraoperative anesthetic care)?

Response:

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Either area described does may not necessarily be within the professional area of responsibility of an anesthesiologist during the conduct of an anesthetic. However...

Generally, to provide optimum patient care, it is within the purview of an anesthesiologist to help ensure that, for example, antibiotics are administered within the “time window” believed to be best to diminish the risk of surgical site infection, such as within 30 to 60 minutes of the surgical incision. This time may be during the period in which the anesthesiologist has direct responsibility for medication administration. The anesthesiologist would not likely be expected to take primary responsibility for the choice of antibiotic to be used for such prophylaxis.

Similarly, the insertion of a central venous catheter is within the anesthesiologist's scope of practice and, to provide optimal patient care, this may happen during the period of operative care. If such a procedure is not required for intraoperative care, it

may be inserted in the OR as a matter of professional courtesy to facilitate care of the patient and perhaps following direct physician-to-physician communication on the need for that care but likely not expected to be necessarily a “responsibility” of the attending anesthesiologist. The fee paid for ICU care specifically includes the insertion of appropriate monitoring catheters.

October 2012

Query: Baby-Friendly Hospital Initiative

The World Health Organization (WHO) and UNICEF have a Baby-Friendly Hospital Initiative in an effort to increase breastfeed rates. A component of this is immediate and prolonged skin-to-skin contact between mother and infant: “skin-to-skin contact with them immediately or within five minutes after birth, and that contact continue without separation for an hour or more, unless there are medically justifiable reasons. (Note: It is preferable that babies be left even longer than an hour, if feasible, as they may take longer than 60 minutes to breastfeed).”

There is nothing in the UNICEF or WHO documents regarding what resources are expected to achieve this. Through the grapevine, we hear that our hospital is considering implementing this program and that the anesthesiologist will be responsible for the surveillance and monitoring of the newborn, which will be on the mother’s chest during the operation. As a department, we are concerned that this puts us in conflict with “the anesthesiologist’s primary responsibility is to the patient receiving care” as we will be expected to be responsible both for our patient who is undergoing a surgical intervention and also the newborn.

Does the CAS have an opinion on this matter?

Have there been claims against anesthesiologists who are undertaking the care of two patients simultaneously?

Have there been issues with the Baby-Friendly Hospital Initiative and cesarean deliveries in other provinces or countries?

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Our Guidelines state: "The anesthesiologist's primary responsibility is to the patient receiving care" and "When an anesthesiologist is providing anesthetic care for an obstetric delivery, a second appropriately trained person should be available to provide neonatal resuscitation." (This is on the 6th page of the document in the section entitled "The Anesthetic Period"). The intent of these passages is to define the mother as the patient whose care is under the direction of the anesthesiologist, and the newborn as a separate "patient" whose care is under the direction of another health care provider for the duration of the procedure. Today, this would generally be a pediatrician or other physician attending the caesarean section, and would remain responsible for the care of the baby throughout the procedure.

CAS cannot comment on the merits of the Baby-Friendly Hospital Initiative and has no specific objection to initiating skin contact in the operating theater. In this circumstance, the anesthesiologist would not take over responsibility for the care of the baby, and expectation is that the baby would be removed to a safer environment should there be any concern by the anesthesiologist with respect to necessities of maternal care. This would be a "not infrequent" event, as maternal events requiring specific intervention are not uncommon during caesarean section. It is not expected that any objection from other caregivers would be raised in removing the baby if necessary, as clearly the overall wellness and safety of the baby would be paramount to the infant care provider as well. Quite clearly, these situations must be carefully considered and clarified during the discussions leading up to the establishment of such a program (i.e., before the program is established and not during a problem).

February 2013

Query: Change to Procedural Sedation Guidelines

We would like CAS to make changes to the guidelines for procedural sedation to say that fasting before minimal sedation in healthy patients has not been shown to decrease aspiration or to improve safety and therefore is unnecessary. Our patients are all pregnant and many have pregnancy-induced nausea made worse by fasting. The College of Physicians and Surgeons of British Columbia requires fasting prior to the procedures because of the CAS guidelines.

[Note: accompanying the query was a published paper about avoiding fasting before procedural sedation]

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The question is believed to be specifically answered by wording within the document entitled "Appendix 6: Position Paper on Procedural Sedation: An Official Position Paper of the Canadian Anesthesiologists' Society". In this document, CAS states: "The precise requirements for pre-procedural fasting are evolving. In general, patients provided with more profound levels of sedation (RSS 5-6) should fast in accordance with general CAS standards, namely, no lipids or solids for six hours and no clear fluids for two hours. More liberal guidelines may be appropriate for lighter levels of sedation (RSS1-4), but they should be individualized in view of the patients' co-morbidities...."

The situation described as minimal sedation in healthy patients would be considered as one which is quite reasonably appropriate for individualized management with "more liberal" standards than the six/two "rule" noted above. CAS would consider that a "light breakfast" prior to the procedure in most – probably all – patients would indeed be a reasonable management plan. This is a model followed by many

anesthesiologists in other clinical situations such as cataract surgery.

It is likely that the College of Physicians and Surgeons of British Columbia is misinterpreting the guidelines as published and this could be discussed with them if it would be helpful.

June 2009

Query: Verbal Consent for Labour Analgesia

Our hospital has been obtaining verbal consent for labour epidurals (in addition to the written general hospital admission consent from the obstetricians). This has been the standard in our hospital, as well as all the other hospitals where I have worked, and our hospital is now preparing for accreditation. The Accreditation Committee enquired about the need (or not) for written consent for labour epidurals and if there are written guidelines to that effect. CAS guidelines for provision of obstetric anesthesia on the website states: "Informed consent should be obtained and documented in the medical record." Please clarify if indeed verbal consent is appropriate for labour analgesia.

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The obtaining of "informed consent" for any part of anesthesia care is not viewed to be an option. Obstetric regional anesthesia is, in this regard, identical to any regional anesthesia or any other anesthesia. Informed consent must be obtained and this must be documented. Beyond that, the Guidelines are not specific and it is expected that professional judgement will define exactly what the actions should be.

As a next step, there is information on the Canadian Medical Protective Association (CMPA) website and CMPA could be consulted in this regard, from a legal point of view. Two quotes from the web version of their "Consent" booklet follow:

In the shorter Oxford dictionary, consent is defined as "the voluntary agreement to or acquiescence in what another person proposes or desires; agreement as to a course of action."

Consideration of a consent form to be signed by the patient should not obscure the important fact that the form itself is not the "consent." The explanation given

by the physician, the dialogue between physician and patient about the proposed treatment, is the all important element of the consent process. The form is simply evidentiary, written confirmation that explanations were given and the patient agreed to what was proposed. A signed consent form will be of relatively little value later if the patient can convince a court the explanations were inadequate or, worse, were not given at all.

Apart from providing evidence that a patient consented to proposed treatment, there is another important reason for having consent forms signed. In many Canadian jurisdictions it has become a legal requirement that such a document must be completed before any surgical procedure is undertaken in a hospital.

https://www.cmpa-acpm.ca/cmpapd04/docs/resource_files/ml_guides/consent_guide/com_cg_consentforms-e.cfm

We consider that a written form for consent for anesthesia interventions is not required (unless the province requires it) and is not necessary or necessarily helpful. Some hospitals have a general consent for all hospital interactions and this would likely meet the general requirements for written consent unless anesthesia is mentioned specifically in the provincial requirements. Discussions in the past have indicated that some individuals feel that the consent form for surgery includes the consent for anesthesia. However, the consent obtained from the patient must be clearly documented in the record, perhaps on the anesthesia pre-procedural assessment form.

From an accreditation point of view, this may fall upon the Chief of Anesthesia to ensure that the appropriate consent is obtained or more properly **documented** as part of his/her responsibilities to ensure that records are kept.

April 2013

Query: Monitoring for Anesthetic Gas Leaks and Wastage

Are there any set standards as to the frequency of monitoring of ORs and other critical areas for anaesthetic gas leaks and wastage, as well as the frequency of surveying waste anaesthetic gas levels in all areas involved?

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Occupational exposure to inhalation of anesthetic gases should be minimized, as it may lead to adverse health effects for the personnel exposed. Checking for anesthetic gas leaks is an important audit function in operating rooms, and is generally undertaken by biomedical engineering departments within institutions. The regulation of this is likely described by standards promulgated by the Canadian Standards Association (CSA) and the International Standards Association. There is a series, including, for example, "CAN/CSA-Z7396.2-02 (R2007) Medical Gas Pipeline Systems — Part 2: Anaesthetic Gas Scavenging Disposal Systems".

The CAS Guidelines specify that institutions should be in compliance with the various CSA standards, without specifying the details of each standard. The definitive source for your query is, therefore, the Canadian Standards Association.

February 2010

Query: Handing Over the Case to “On Call” Colleague

I have been asked to comment on the following scenarios by our hospital's administration and would appreciate an opinion on my suggestions. We are three anesthesiologists working in an 80-bed hospital with three operating rooms.

Anesthesiologist A: on call for 24 hours for Monday and on routine list for Room 1 on Monday morning.

Anesthesiologist B: on routine list for Room 2 and was post call and on call from Friday, Saturday and Sunday. They were busy during these three days but not busy on Sunday night.

Anesthesiologist C: on routine list for Room 3 on calls done from home and carries the pager to cover the calls.

Scenario: Anesthesiologist C finished his/her room at 15:30 and left. Anesthesiologist A (on call) finished his/her room at 14:00. Anesthesiologist B (post-call) was busy until 15:00 and, although supposed to be finished by that time, unfortunately there were some surgical complications and the case was delayed. Patient was stable hemodynamically and anesthesia-wise. Anesthesiologist B was tired as he/she was post-call and requested on call Anesthesiologist A to take over the case or to give him/her break.

On call Anesthesiologist refused to take over the case, mentioning that the case had surgical complication without reviewing the condition of the case. Anesthesiologist B informed the Chief of the department (who is not an anesthesiologist). He/she informed that, in being tired, it was difficult for them to continue care of the patient (“Please make some arrangements, as the On Call Anesthesiologist refused to help me.”)

Comments and questions:

- On call anesthesiologist should have reviewed the case before refusing his/her colleague.
- Anesthesiologist A should have at least offered a break to Anesthesiologist B. There was only one surgery going on.
- Anesthesiologist B is tired so that is not safe for the patient.
- There was no other anesthesiologist available during that time of the day.
- Anesthesiologist A has the right to refuse to continue the case but could have

given a decent break to the tired anesthesiologist so that he/she could finish the case.

- Anesthesiologist A was also relieved by the on call anesthesiologist in the past. It means a group transfer of the patient care responsibilities among themselves from time to time.

What is your opinion on this scenario? Are there working guidelines for anesthesiologists?

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In consideration of the situation described, there are no specific guidelines that address the issues and so the questions are answered obliquely. Two issues are really being described:

- The issue of physician fatigue. The Standards Committee recently discussed this (as have other groups) and has defined that Anesthesia Departments do need to establish protocols to deal with physician "fitness" in its broadest sense, including fatigue and health issues. It is clear that physician fatigue can be a problem in the optimal provision of safe patient care. However, to come up with a simple guideline is a problem because of the multiple situations encountered in Canada: very small departments such as yours versus the very large city departments with quite different problems and solutions for which no single solution has been crafted for a guideline.
- The relationship between members of the department. This is not addressed in the Guidelines but is, in any case, more an ethical question than a standards question. It seems obvious that if one colleague requests help from another that the latter would offer help, particularly in the setting of an issue impacting patient safety. However, there may well be circumstances in these scenarios that have not been

described and which complicate the situation such that a simple criticism of Anesthesiologist A is incomplete.

The Guidelines state that among the responsibilities of the Chief of Anesthesia is "...to ensure that written policies with respect to the practice of anesthesia are established and enforced..." Inasmuch as the clear description of a situation of physician fatigue and "handing over of responsibilities", the department must get together and establish a management plan for this situation, should it arise again, then the Chief will have a direction which he/she can use to assist in managing the conflict.

In passing, while you have not asked this as a question, the Guidelines state that "... The chief of the department should be a physician who has obtained certification or appropriate training in anesthesia. This individual should be appointed in the same manner as other chiefs of clinical departments and should be a member of the senior medical administrative bodies for the facility." The Chief is not described as an anesthesiologist. Not knowing how this situation has arisen, there may be many good reasons, but perhaps this situation doesn't contribute to the apparent inability to resolve the situation internally.

Lastly, perhaps the department is a little understaffed in trying to run three operating rooms and an anesthesia call system with only three anesthesiologists. Would not recruiting another anesthesiologist assist in managing some of these problems?

July 2012

Query: Standards/Minimum Competency in Anesthesia

My department is interested in looking for criteria/data to define minimum clinical competency in the practice of anesthesia after certification. This is particularly with reference to anesthesiologists who do not provide regular daily anesthetic care as a result of having different scopes of practices such as critical care, pain management and/or general practitioner anesthesiologists. What would constitute minimum hours of anesthesia practice per certain period (week/month) to meet minimum clinical competency in the field?

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This is a very complicated question and one which is not addressed specifically by the CAS Guidelines save for the comment that the Chief of Anesthesia is responsible "to evaluate the qualifications and abilities of the physicians providing anesthetic care and other health professionals providing ancillary care – this includes (but is not restricted to) the recommendations of clinical privileges for physicians with anesthetic responsibilities and annual review of these privileges" and "to monitor systematically the quality of anesthetic care provided throughout the health care facility – this should include chart reviews and internal audits or more detailed reviews when indicated."

These statements, which were defined some years ago, do not provide specific tools or advice to accomplish them. However, what is described is a series of clinical and non-clinical skills which a physician should have to be given "Privileges in Anesthesia", which the Chief should assess in determining whether the practitioner in question possesses and uses those skills clinically to determine whether they should continue to practice, or perhaps undergo independent assessment. In a small department, such an assessment may be difficult, and it may be appropriate to ask for assistance from other resources available within or outside of the hospital.

If there is an accepted definition of “minimum hours of anesthesia practice”, it could usefully substitute for such a detailed examination. In this context, the CAS is neither an educational, accrediting or regulatory organization and, for those functions, one must look to the Royal College of Physicians and Surgeons or the provincial licensing colleges for guidance.

April 2012

Query: Neuraxial Opioid Care Guidelines

I work at the small northern hospital and am working on revising our current Epidural Protocol. I am trying to find some current information regarding the monitoring of patients following the administration for Epimorphine and Epifentanyl.

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In common with many aspects of care, there are no good evidence-based rules to prescribe for neuraxial opioid monitoring, and because of this CAS has not made specific prescriptions in its Guidelines, with the understanding that local clinician anesthesiologists are best placed to interpret their own practice and setting and determine appropriate care guidelines for their institutions. Having said that, there are a number of resources available to clinicians, providing models, including those provided by the American Society of Regional Anesthesia and the American Society of Anesthesiologists. Refer to Appendix 4 on the CAS website.

October 2010

Query: Delegating Care to Residents

Regarding delegating care to Residents, the Guidelines state care may be delegated to “a resident in anesthesia”. Is a PGY1 in anesthesia a Resident in anesthesia? I have always assumed so and leave them alone for brief times in the OR during the maintenance phase (being immediately available by pager).

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The Guidelines statement has been read correctly: that care may be delegated to a Resident. As always, the “devil is in the details” and the key phrase is “increasing professional responsibility”. “All resident activities must be supervised by the responsible attending staff anesthesiologist, as required by the Royal College of Physicians and Surgeons of Canada and the provincial and local regulatory authorities. The degree of this supervision must take into account the condition of each patient, the nature of the anesthesia service, and the experience and capabilities of the resident (increasing professional responsibility).”

An R1 doing a rotating general year (perhaps a month elective in anesthesia but very junior) is different from an R2 doing only anesthesia and now eight months into his/her program, and obviously from an R5. I think the R2 above should be quite capable of managing the maintenance phase of a stable case on the leash of a pager. The one-month trainee would be considered quite junior and most anesthesiologists step out of the room on those individuals but do not leave the OR suite.

The practical answer is that I do not object to leaving a well-selected R1 alone but would want to be very close.

September 2010

Query: Policy for Conscious Sedation and General Anesthesia

The Canadian Society of Gastroenterology Nurses and Associates (CSGNA) recommends that patients do not drive for 24 hours following conscious sedation and that is our policy for conscious sedation and general anesthesia. Do you know if this is provincially mandated or simply a guideline? Can you tell me what sources I should go to for referencing?

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In addition to the CAS Guidelines, each provincial licensing body has their own policy. For their anesthesia guidelines, some (such as in British Columbia) refer only and directly to the CAS Guidelines with a website address. Quebec, on the other hand, has its own guidelines statement.

The CAS Guidelines currently state "Specific written instructions should include management of pain, postoperative complications, and routine and emergency follow up. The patient should be advised regarding the additive effects of alcohol and other sedative drugs, the danger of driving or the operation of other hazardous machinery during the postoperative period (most commonly 24 hr postoperatively), and the necessity for attention by a competent adult for the postoperative period (most commonly 24 hr postoperatively)."

Most of these statements are not referenced and this is common in guidelines around the world. The reason for this is obvious in that there is no data regarding the effects of anesthesia and surgery in the late postoperative period, and the actual patient situations can vary widely from very simple diagnostic procedures with absolutely no sequela to procedures associated with sleeplessness, pain, analgesic use, etc. Accordingly, most such statements have only Level 3 strength: "expert consensus".

The 24-hour guideline is perhaps conservative, but considered safe. If additional sedating medications (analgesics or sedatives) are carried on in the postoperative period, obviously the advice in regards to duration of restricted driving should change.

January 2011

Query: Identifying Equipment

I am a reporter researching a story and need your help. The story is about a 25 year-old female who died two years ago because of a mistake made by a nurse in the recovery room after a nose surgery performed in a private clinic.

The nurse had prepared a facial tent kit (*photos attached*) because she thought that the patient would arrive in the recovery room not intubated. When she saw the patient was still intubated, she removed the facial tent and the tube that was attached to it and plugged the intubated patient directly to the oxygen source in a closed circuit for a few minutes...long enough to cause severe damage to the brain because of lack of oxygen. The connection was made possible because the connector that was used by the nurse to connect the “canule d'oxygène” to the “tube corrugué” had an interior diameter that fitted the “tube de rae” that was in the patient's mouth.

That connector (*photo attached*) had, according to our expert, a 6mm diameter at one end (to connect the oxygen source), an exterior 22mm diameter on the other end (to connect the “tube corrugué”) and a 15mm interior diameter at this second end (that permitted the connexion to the “tube de rae”) (*photos attached*). Our expert has never seen that piece of equipment and thinks that it might have been taken off the market because it is dangerous. I would like to find where this connector came from? Who is the manufacturer? Is it a connector that corresponds to the standards of the CSA? Where can I get one?

Response

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The CAS publishes (and revises yearly) the "Guidelines to the Practice of Anesthesia", a document which is available on the internet "<http://www.cas.ca/English/Guidelines>". This document provides "*...recommendations (which) are aimed at providing basic guidelines to anesthetic practice. They are intended to provide a framework for a reasonable and acceptable standard of patient care and should be so interpreted, allowing for some degree of flexibility in different circumstances...*" You should be aware that these are not rigid "Standards" which are felt to be obligatory, but rather "Guidelines" which are advisory and are meant to be interpreted and applied to each clinical encounter using the professional judgement of the anesthesia practitioner.

The particular situation you describe is very interesting because of the nature of the error and not the equipment chosen. The patient was exposed to oxygen at what we call “pipeline pressure” in such a fashion that the “pipeline” and her lungs formed a

closed system; the consequence of this was what you know. There are a variety of ways in which this type of error can be achieved: the important point is that health care professionals must **always** be vigilant to ensure that such a situation does not arise.

We have recently been involved in a “Coroner's Case” in Ontario in which a similar situation, with totally different equipment, was constructed and had the same unfortunate outcome.

The history of the 15mm and 22mm connectors is quite interesting. Members of the CAS as representatives to committees of the Canadian Standards Association (CSA) in the 1960s and 70s were instrumental in defining the standards for endotracheal tube and oxygen delivery tubing specifications. The exact definition of those standards could perhaps be obtained from the CSA (perhaps under CAN/CSA-Z5361-03 Anaesthetic and Respiratory Equipment — Tracheal Tubes and Connectors). What they did is establish common sizes for connections, which were previously widely disparate and associated with many problems because of connections that did not connect reliably.

With the widespread adoption of these standards, connectors measuring 15mm internally and 22mm externally are widely available; it would not be difficult at all to construct an item such as you have photographed using any one of a number of pieces of equipment widely available. The real problem lies in using what may be quite reasonable equipment in an improper fashion; this is a systemic problem which needs to be recognized, and tools and equipment must be available for hospital staff to minimize the risk of such a problem occurring.

In some institutions, the type of problem described is avoided by making available specific equipment for the specific purpose needed. [Note: refer to attached photographs of examples of the equipment used when a patient is treated in the postoperative recovery area with an endotracheal tube in-situ.] The equipment is superficially similar, but note that the white corrugated the connecting tubing is open (an endotracheal tube attaches to the t-connector) and the open tubing means that there is always a pressure relief area. What is not so obvious is that the small connector (22mm in external diameter) is thin walled and about 20mm in internal diameter and thus could not, even if desired, be affixed to a 19mm connection without deliberate attempt to circumvent design. Even if that could happen, apparatus could be constructed to connect the “safe” connector in an unsafe fashion, hence the need to appropriately warn and train medical and paramedical staff about the potential danger of pipeline oxygen pressure (50 cm H₂O).

April 2011

Query: Availability of Ultrasound in Anesthesia

I would like to know if the CAS had any specific recommendations/positions about the use of ultrasound in the placement of central lines and nerve blocks? We currently have no access to an ultrasound in the OR. We do many nerve blocks and all central lines without it. I understand that the use of ultrasound to place central lines in the ICU is considered to be “best practice”. All other departments of anesthesiology in Ottawa routinely use ultrasound for nerve block and central line placement in the OR block. Does this mean we are outside the norms or regional practice?

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As you likely have read, the Guidelines place responsibility on the facility to ensure that equipment of all sorts, including diagnostic equipment such as ultrasound, is available as needed for patient care. It falls upon the Department of Anesthesia to make clear the facility's exact requirements. Many anesthesiologists, with the support of a number of literature references, feel that the best quality and best safety of anesthesia care for such interventions as central line placement and regional block requires the availability of ultrasound technology, and as you note they have required their facility to provide that support. It is thought that this is now almost universal. In my hospital, we have eight operating rooms and three ultrasound machines; it has not yet moved to be a “requirement” for use in, for example, central line placement, as it is not believed that the level of support and evidence in Canada has reached the level to **require** use for every case, though this may come to pass.

It appears to be within your rights to demand that the facility make such equipment available to you: if you make such a requirement clear to the institution and there was to be an adverse patient outcome when such equipment was not provided, there is little doubt that the institution would be held to have significant legal liability for such an adverse outcome.

May 2010

Query: Sedation by Non-Anesthesiologists

I am the Chief of Anesthesia at a large community teaching hospital. We are one of the few Canadian anesthesia departments that provide sedation for patients undergoing endoscopic procedures such as colonoscopy, gastroscopy ERCP and bronchoscopy. We have been doing so for about 20 years after there was a patient death secondary to unrecognized apnea during sedation. This issue is becoming a hot button issue in the USA where now up to 50% of patients are receiving propofol for endoscopic procedures with and without anesthesia personnel. The American Society of Anesthesiologists has stated that patients receiving propofol sedation should receive care consistent with deep sedation (i.e., a separate anesthesia/sedation provider trained in anesthesia/airway management and circulatory management).

Currently, we have a gastroenterologist who has some collegiality issues but is also mobilizing the Canadian GI/Endoscopy societies to clearly state that the sedation must be directed by the gastroenterologist, as that is the MD assuming the risks of the procedure. The president of the endoscopy society has basically said as much and that because pain is an indicator of impending perforation (secondary to bowel stretch), sedation must be directed by the GI MD. This of course is contrary to our practice for 20 years (with no increased perforation rates), and contrary to 50% of endo units in the US (many of whom are fighting to give their own propofol to keep billings, which are split with the anesthesiologist if they are involved in the sedation).

Does the CAS have a position on who is the most responsible MD for sedation and anesthesia and, with the coming guidelines on moderate sedation, will it address the use of propofol?

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The specific answer to your question as to the CAS position on who is the most responsible MD for sedation and anesthesia is, as stated in the Guidelines: "The independent practice of anesthesia is a specialized field of medicine. As such, it should be practised by physicians with appropriate training in anesthesia. The only route to specialist recognition in anesthesia in Canada is through the Royal College of Physicians and Surgeons of Canada's certification process." The expanded answer, beyond that straightforward statement, is the "devil in the details".

CAS has gradually recognized that the practice of "Procedural Sedation" has evolved over the years, and on a purely practical basis, appreciates that sedation (not "anesthesia") is and will be provided by or under the supervision of non-anesthesia-trained physicians. We believe that there should be strict institutional control of such practice, optimally assisted by members of the Department of Anesthesia. We have had a dialogue with the Canadian Association of Emergency Physicians (CAEP) in the past, and we were not able to come to agreement on guidelines for procedural sedation in the ER and that group developed their own guidelines for procedural sedation. To my knowledge, we have not had formal discussion with other groups such as the gastroenterologists. As you are aware, the Joint Commission in the US some years ago mandated that anesthesia departments should supervise and direct the practice of procedural sedation in hospitals. To my knowledge, there is no such requirement in any jurisdiction in Canada.

CAS maintains the position that "anesthesia" is the realm of the anesthesiologist and as such, agents such as propofol, with a narrow therapeutic window and regulatory approval for use only by anesthesiologists, should be used for procedural sedation and anesthesia only by anesthesiologists.

A specific point in your question is a bit confusing. You state: "Currently we have a gastroenterologist (who) state(s) that the sedation must be directed by the gastroenterologist as that is the MD assuming the risks of the procedure." In any procedure involving an operator undertaking an intervention with sedation/anesthesia managed by an anesthesiologist, quite clearly the anesthesia care is managed by the anesthesiologist, who assumes the risk and responsibility for that anesthesia care. The operator assumes the risk and responsibility for the procedure. There are obviously areas of mixed responsibility. However, these two medical personnel share overall responsibility, no one more responsible than the other, and one not subservient to the other. As a professional responsibility, it behooves both individuals to have this relationship clearly defined prior to undertaking a joint intervention.

If there is no physician involved with sedation care, and the gastroenterologist is supervising sedation administered by a nurse or other individual under his/her direction, then he/she takes the responsibility for that care. Both models for care are widespread across Canada. We believe that sedation administered or supervised by a non-anesthesiologist should be only in the realm of "light sedation" or, at most, "moderate" – the induction of "deep" sedation is clearly difficult to control and that this lies in the realm of an experienced anesthesiologist.

January 2010

Query: Minimum Response Times from an Anesthesia Practitioner

I would like to know if CAS guidelines exist on the minimum anesthesia response times required for surgical or obstetrical emergencies.

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You are quite correct to observe that the Standards Committee has not addressed the issue of minimum response times from an anesthesia practitioner. We do state that the Chief of an Anesthesia Department must "ensure that written policies with respect to the practice of anesthesia are established and enforced", and "monitor systematically the quality of anesthetic care provided throughout the health care facility" but we do not specify within these response times.

This would be very difficult to specify precisely within a Guideline applicable to the many situations facing Canadian anesthesia services. As an obvious case in point, a tertiary or quaternary care obstetric institution would have very different expectations with the provision of obstetric anesthesia services than a small rural hospital. It likely falls upon a local department to examine their practice and develop guidelines applicable locally, probably in concert with the surgical services involved. Perhaps many medical staff by-laws do this as part of a credentialing process.

March 2011

Query: Topical Anesthesia and Perioperative Fasting

Over the past three years, we have transitioned our cataract lists to the point where we are well over 90% topicals, rare sedation/GA/block. We are experiencing pressure from one of our ophthalmologists to feed patients the morning of their cataracts, provided they will be done under topical. I would add that if they are not fasted, there is no chance of getting sedation, a block or a GA. What I am looking for is guidance on this issue. I checked with the other centres in the province, and cataract patients are universally fasted. I reviewed the 2011 guidelines and words like “should” are used instead of “must”. Where would we stand if we allowed patients to be done under topical anesthesia to have a light breakfast the morning of their surgery?

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Your statement as to “should” versus “must” is quite accurate. CAS does not attempt to provide “rules” for care but rather “guidelines”, which must be interpreted in the light of local practice.

Many centers now do not require rigorous fasting before cataract surgery under local anesthesia. A report describing a very liberal approach (Suren Sanmugasunderam, MD, FRCSC; Aniz Khalfan, MB, ChB m(*Is fasting required before cataract surgery? A retrospective review.* Can J Ophthalmol 2009; 44:655–6) and editorial (*Is fasting required before cataract surgery?* Can J Ophthalmol 2009; 44:645–7) supports this practice and also reference articles supporting this practice, and suggests it is relatively widespread.

I believe it is likely quite safe to allow oral intake in situations such as cataract surgery under topical anesthesia without or with minimal sedation.

For those patients who require a major conduction block (peri or retro-orbital) or general anesthesia, a conservative approach would be to continue to require a period of fasting, and the system for managing that would be something that a local center would have to develop, perhaps asking a surgeon to identify preoperatively those patients whose surgery could not be carried out under topical anesthesia (Is this too much to ask of a surgeon?) and preparing those selective patients separately. Alternatively, the ad hoc change in plan can perhaps be accomplished by delaying the procedure until later in the day.