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To: NIOSH Docket Office (CDC)
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Subject: Comments on NIOSH survey
Attachments: NIOSH Survey Comments_6_16_final.doc

To Whom It may Concern:

Attached please find the comments of the American Society of Anesthesiologists on NIOSH's proposed survey of healthcare workers.

Please confirm by return e-mail that you have received this in a readable fashion.

Thank you

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Thank you for the opportunity to comment on the proposed Hazard Surveillance Survey of Health Care Workers. We are submitting this response on behalf of the American Society of Anesthesiologists (ASA), a medical specialty organization representing over 40,000 physicians practicing anesthesiology in the U.S. In preparing these comments we have solicited input from many colleagues who have conducted research and are experts in the areas of waste anesthetic gases, infection control, and prevention of sharps injuries.

Because of the relevance to the health and safety of ASA members, we have concentrated our comments on the Employee Core Module, the Management Survey, and the 4 modules that most directly address the practice of anesthesiologists. Each of these recommended edits should get careful consideration. There is a strong feeling among the content experts in anesthesiology who reviewed the proposed study that these changes are crucial to avoid questions that will yield biased, incomplete, or inaccurate data. Each of the numbers below refer to questions in the latest published version of the proposed survey modules.

Employee Core Module

Question 6): This question requests information on the "department or specialty area" where the work takes place. Is the purpose of question 6 to identify the location of work within the facility or the administrative unit of the worker? One choice is "Anesthesiology" but anesthesiologists work in the operating room (Surgery) and labor and deliver suite (Obstetrics/Gynecology). Anesthesiologists also provide anesthesia services (general anesthesia) in other places such as radiology department (Radiology), cardiac cath lab (Cardiology), radiation therapy, or GI endoscopy suites. Some anesthesiologists work in ambulatory surgery centers (freestanding without a relationship to a hospital) or in physician or dentist's offices. It is very possible that a significant hazard would be present in one location but totally absent in others. This information would not be captured with the current format of the question.

Question 7): Anesthesiologists often are partners or work for their own group which is contracted by the hospital or facility. Which of the categories would this fall under?

Question 12): It is important to separate weekend versus weekday shifts since staffing, level of emergency cases, and duty hours may impact on exposures.

Question 13): Anesthesiologists frequently rotate among several locations during the week. How would they respond to this question and is it important to capture the information from their entire 7 day exposure?

Question 21) We question the relevance of many of the questions under "Job Demands". "My job requires me to be creative" or "People I work with are friendly" does not pertain to the stated goals of the survey- "...to collect information describing hazards, exposures, safety and health practices." (ajb comment: Some of the questions are designed to assess anger or rage in the workplace which is becoming a significant issue in

healthcare. NIOSH added these kinds of questions to begin to look at workplace violence.)

Question 21b) The term "repetitive work" is used but not defined. Anesthesiologists do repetitive work in that each patient gets an intravenous, each gets ECGs placed, etc. This is likely not the kind of repetitive work that you are interested in so a definition of the term is necessary.

Many of these questions have implied value judgments built into the question which should be changed. For example:

- 21) e) "I get to do...." Change to "I do....." --- "get to" adds a value judgment
- f) "I have an opportunity...." Change to "I can..." "Opportunity"= value judgment
- g) "My job allows me to"..... Change to "I can....."

Question 29): This asks if the individual handles "syringes". Syringes are not sharps unless they have a needle on them. Many anesthesiologists now use needleless systems for injections into intravenous tubing and so they would handle syringes but there would be no risk of needle stick injury. The use of needles on syringes needs to be specifically noted.

Question 31, 32, 33): These ask if safe needle devices are used "for injections, IV insertions, or phlebotomy." Anesthesiologists are likely to use the safety devices for injections into IV lines but not for IV insertions. How would they answer this question since the various procedures/devices are grouped together? For question 33, there should be another option: No commercially available device is acceptable for use in my practice.

Question 37): Contaminated "equipment" should be added to this list.

Question 54) This question is a bit confusing and potentially misleading. Required-sometimes? all of the time? These will elicit different answers.

Management Survey :

Question A33: 2nd response) : "Number of lost work-days" should be revised to "Number of lost work-hours" - not all work days are of the same length
Anesthesiologists' work hours often vary by day depending on the setting (hospital operating room, outpatient center, or on-call duties).

Question C6, D7, E7, F7) : The questions that deal with air sampling require revision. The answers will not be interpretable without specifics about the type(s) of sampling as well as how many samples over what time frame

Question E9) Requires a possible response of "Not Used",

Module F: Surgical Smoke

Question 11): In some institutions, smoke evacuation devices are routinely used during laser surgery but not when electrosurgical devices are used. This question should be divided into two parts to permit the data to correctly capture the above situation.

Question 15- 17) These questions need to be rewritten to be more specific or alternatively they should be eliminated. They do not account for differences in type of procedure and distance that the individual was located from the plume, both of which would have impact on the level of protection that is appropriate.

Module G: Anesthetic Gases (Those who administer)

Question 2) Either eliminate or rewrite this question. "When have you received formal training at this facility....." Since this education is a standard part of the residency curriculum, all anesthesiologists receive training on the safe use of anesthetics during their residency. Unless there is new information to be presented, there would be no need to repeat training in the safe handling of anesthetic gases and volatile liquids at each facility that anesthesiologists worked. Any on-site education would be limited to the particular information related to the specific procedures of the facility.

Also, most of the commonly used anesthetics are volatile liquids that are put into a vaporizer before administering to patients. If the term "anesthetic gases" is used, you may not capture information regarding how the liquid forms of the anesthetic are handled.

Question 6-10) These questions need to be more specific or eliminated. They appear to seek a measurement of "exposure" to anesthetic gases, but time administering anesthesia may be poorly correlated with true exposure. There are too many confounding variables since these questions make no assessment of the use of low flow anesthetic administration techniques, use of waste gas scavenging, and the proportion of time that mask anesthetics are administered. Without measurement of waste gas concentrations in the breathing space of the anesthesiologist, reliance only on time of anesthetic administration will likely lead to incorrect exposure information.

Question 10): Anesthesiologists work in many other locations such as radiology suite, cath lab, MRI, labor and deliver. These "off site" (non-operating room) locations may pose a greater risk of exposures. These other sites must be listed to create a more complete picture.

Question 27) – 29) These questions should be eliminated. We are unaware of any practice standards that mandate wearing “respirators” while administering anesthetic gases. Furthermore, we are unaware of any literature that recommends that anesthesiologists routinely use respirators during administration of anesthetic gases or of any facility where this practice occurs.

Module H: Anesthetic Gases (Bystanders who do not administer)

Questions 11 and 12): These questions should be eliminated. Most surgeons or operating room nurses would not know the answer to these questions since they have no involvement in the anesthetic management of patients. Also, this “recall data” would likely be very inaccurate.

Question 19- 21) These questions should be eliminated. As in Questions G 27- 29 (see comments above), these questions assume that respiratory protection is required during the routine administration of anesthetic gases.

Module I: Waste Anesthetic Gases (Post Anesthesia Care and Surgical Recovery)

General Comments:

One of the major factors determining the level of waste anesthetic gases in the Post Anesthesia Care Unit (PACU) is the adequacy of room ventilation, i.e. airflow, air exchanges per hour, and proportion of recirculated air in the HVAC system. A question regarding this information would provide important information regarding conditions in PACU that related to ambient level of waste anesthetic gases.

Another factor that is likely to affect ambient level of anesthetic gas is the specific anesthetic practice at the institution. Many anesthesiologists extubate patients in the operating room as they awaken and therefore, the exhaled concentration of volatile anesthetic coming from these patients would be very low when they reached the Post Anesthesia Care Unit. In contrast, other anesthesiologists choose to bring the patients to the Post Anesthesia Care Unit while they are still anesthetized and intubated and then let them wake up in the Post Anesthesia Care Unit. Under the latter circumstance it would be expected that the exhaled concentration of anesthetic would be higher leading to greater ambient levels of waste anesthetic gases. If valid information is to be obtained from this module, questions regarding the clinical practice at the institution would be necessary.

In some ambulatory surgical practices, most of the cases are done without general anesthesia (local anesthesia with sedation would be used) and therefore, nursing personnel in the Post Anesthesia Care Unit would have less or no exposure to waste anesthetic gases. If valid information regarding exposures is to be obtained from this module, questions regarding the clinical practice would be necessary.

In many facilities, periodic monitoring of the ambient air in the Post Anesthesia Care Unit is performed. Data on the routine use of monitoring, either air sampling or use of dosimeters, appears warranted to assess true exposure to anesthetic gases.

Question 10-13) These questions should be eliminated. As in Questions G 27- 29 and H 19- 21, there is an unwarranted implication that "respiratory protection" is recommended in the PACU to prevent exposure to anesthetic gases coming from patients awakening from general anesthetics. We are unaware of literature to support such an assumption or any such recommendation.

Additional comments:

ASA is anxious to continue in assisting NIOSH as they refine the survey questionnaire. Please feel free to contact Dr. Berry or Dr. Katz directly if we can be of help.

Finally, as we discussed when we were considering participation, it will be extremely helpful for ASA if we can gain access to the unanalyzed data that specifically pertains to our specialty. That information will be important to allow us to move from data collection to meaningful improvements in our daily work habits and routines.

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