Occupational Medicine Program Review, Ames National Laboratory, February 19-20, 2013

Peter D. Lichty, MD MOH FACOEM

Introduction

In January 2013, I was honored to be invited to review the occupational medicine program at Ames National Laboratory. Of all the program elements, particular interest was expressed in staffing and resource levels relative to the size of the Ames staff. There was also interest expressed in the relationships between the occupational medicine program and the collaborating programs in environment, health, safety, industrial hygiene and human resources. As a resident of the Iowa State University (ISU) campus, the clinic also provides services to Iowa State University (ISU) employees.

Scope

During the 1 ½ day visit, interviews were held with relevant leaders in both Ames and ISU departments. A tour of representative Ames laboratories was held, and the occupational medicine department was toured. The presence of various occupational medicine programs was verified, but a detailed inspection of those programs was not performed. Similarly, routine medical functions, such as charting and quality of services were not reviewed. This review was greatly aided by the advance review of program description documents provided by Carol Streit, occupational program administrator.

Ultimately, I hope this review helps build on the existing excellent services to create an efficient, high-quality occupational medicine function that will be the right size for its location, and sustainable in terms of meeting the changing needs of ISU and Ames Lab, and attractive for practitioners when recruiting is necessary.

Basic Program Description

The occupational medicine program is run by a small staff of 1 FTE RN, 0.6 FTE physician, 1 FTE administrator, 0.6 FTE receptionist, 1 FTE LPN, and 0.1 FTE student. The facility is run out of a ground floor office in the Technical Administrative Services Facility (TASF) building, with an ADA-compliant access and a rear door suitable for emergency transport. There is a dedicated, secure medical record storage area. The office is very close to the EH&S group, facilitating easy communication. The buildings are served by ISU first responders, but also houses Ames-specific security functions. The overall size of the employee population is approximately 750 for Ames and 5,000 for ISU.

Impressions

1. Like many occupational medicine programs, Ames uses an electronic clinic management program. This recent acquisition, the Occupational Health Manager (OHM) web-based program, appears to be lacking some functionality that was expected. Specifically, email communication and reporting of care provided to ISU employees is not meeting the needs of ISU. In addition, the feed of HR demographic data may not provide sufficiently accurate employer information for various job classifications. That is, employees needing services may be classified as Ames or
ISU employees, where the reality might be both or neither. This is important for the proper filing of workers’ compensation claims. Recommendation: retain a business process analyst to define the user requirements of ISU occupational medicine customers and compare them to the capabilities of the OHM software program. This opinion should inform whether OHM is capable of being configured to meet ISU needs.

2. The staffing of the Ames occupational medicine department is one of the smallest in the DOE system. I was asked to identify the minimum staffing necessary for safe clinic operation. This question has two answers: on any given day, there should be someone at the front desk to greet, triage, and call for help if there is an emergency. There should be a nurse clinician to initiate urgent medical care. There should also be another clinician to support the nurse clinician with clinical care and activate the emergency response system if transport is needed. Clinic management should be in clinic most times, but cannot always be there. In order to provide this level of staffing as well as cover periods of vacation, sick leave, and continuing medical education, I recommend a minimum clinician contingent of two full-time nurses with on-call back-up; one full time receptionist with on-call back-up, and a full time physician. More opportunities for enhanced staffing are described below.

3. Classification of occupational health professionals (and all EH&S staff) into the job families of standard salary surveys often results in inappropriate job descriptions and salaries. For EH&S staff, the best salary survey I have found is the Foushee salary survey, which specializes in EH&S jobs, and offers salary ranges adjusted for geography across the US. Given the impending shortage of occupational medicine doctors and nurses, it is important that these job titles, job families, and salary ranges be appropriately managed. An effort should also be made to harmonize Ames clinic salaries with ISU student health clinic salaries, the closest local comparator. I recommend consulting the Foushee salary survey to validate current occupational medicine position descriptions and salaries against the marketplace.

4. The closest collaboration in EH&S should be between occupational medicine and industrial hygiene. This allows industrial hygienists to assess exposures and place employees in appropriate medical surveillance groups. In addition, occupational medicine personnel can alert industrial hygienists of employees reporting symptoms from possible exposures so that those exposures and their associated controls can be evaluated. At Ames Lab, this relationship is very close, and there was good communication between these groups. One area of possible weakness is ensuring that appropriate individuals are enrolled in medical surveillance programs. A formal assignment of responsibility for maintaining the medical surveillance group roster should be made to the industrial hygiene department, who best knows the exposures at the Ames Lab, and is involved in new experimental safety reviews that may introduce new hazards.

5. The most hazardous potential exposure identified during this site visit was hydrofluoric acid (HF). This is present in both gaseous and aqueous forms at Ames Laboratory. The industrial hygiene staff appeared well versed in both the hazards and controls that apply to HF. Due to the recent turnover in occupational medicine staff, I recommend that Ames Lab makes sure that all new medical staff members take the free online training provided by HF manufacturers. In addition, new information about extracorporeal membrane oxygenation for severe pulmonary
chemical exposures was shared with the SOMD, who immediately began to look for local resources to provide this service.

6. One fairly unique hazard at DOE labs is the presence of free radioactive isotopes. These compounds can be accidently ingested or injected. As a result, most DOE lab medical departments stock the chelating agent DTPA, and other compounds. This hazard is not present at Ames or at ISU, as far as I could determine. The radiation control officer should notify the occupational medicine department if this situation changes for Ames Lab or ISU, so the appropriate chelating agents and antidotes can be stocked if needed. Training in the treatment of radiation-contaminated wounds is available through the REAC/TS center in Oak Ridge.

7. Family Medical Leave administration is currently provided by ISU to Ames. It was not clear how well this was working for Ames, but this is a frequent area of friction with employees, managers and health service providers. At a minimum, I recommend that two-way communication, including regular reporting, be verified between ISU human resources and Ames occupational medicine.

8. It was not clear if adequate information on respirator usage is being relayed to the occupational medicine clinic prior to respirator use certification exams. I mention this because of a recent $35,000 fine at another DOE location where the forms were found to miss some key facts. I recommend that these forms be reviewed against OSHA expectations.

9. The concept of incremental retirement was a new one to me. I do not see how this can work in a service business like an occupational medicine clinic, unless equal backfill is provided.

10. The DOE expects the site occupational medical director to be involved in reviewing EAP services. (10 CFR 851). I recommend that the SOMD be part of the review committee the next time the EAP contract goes out to bid.

11. The Ames Lab occupational medicine department also serves the ISU employee population, to a limited degree. About 1,000 ISU employees are provided medical surveillance through the Ames lab clinic. This has many positive aspects for the Ames Lab:

   a. Hazards and potential exposures at ISU are more diverse than at Ames Lab, providing interesting challenges and learning opportunities for Ames Lab occupational medicine staff. This is already occurring in the appointment of the Ames Lab Site Occupational Medical Director onto the ISU Biosafety Committee. In addition, the veterinary school at ISU also presents interesting problems in occupational health. In the long run, including ISU duties in the tasks assigned to the Ames SOMD will make the job more interesting and attractive.

   b. Ames Lab is currently benefiting from past investments in EH&S protections and staff. The good news is that this results in a very low injury rate. The bad news is that the minimum safe clinic staffing for emergencies not going to be kept very busy solely by care and case management of Ames Lab injuries. Providing care to non-Ames-Lab ISU employees offers the opportunity to fully utilize the occupational medicine staff, and possibly expand the range of services offered to both organizations.

12. Expanding offerings to non-Ames-Lab ISU employees presents a number of challenges and opportunities:
a. Challenge: ISU will have to provide senior management support for the occupational medicine clinic. During this visit, it was clear that ISU EH&S leadership recognizes the benefit this can provide, but human resources and risk management did not seem committed to the concept of comprehensive on-campus occupational medicine services for non-Ames-Lab ISU employees.
   i. Recommendation: A senior ISU executive should be assigned responsibility for occupational health services for ISU employees, and affected senior executives should be instructed to support this effort. The cross-division cooperation will likely included human resources, student health services, risk management, EH&S, and Ames Laboratory.

b. Opportunity: Establishing comprehensive occupational medicine services on campus will solve a weakness in the current arrangement: the off-site occupational medicine clinic currently used for hands-on treatment is only staffed part time by a physician. This results in unnecessary and expensive emergency room visits when the off-site physician is not at the clinic. Expanding occupational medicine services on campus should provide enough volume to justify a full-time physician, probably augmented with a nurse practitioner or physician’s assistant.

c. Challenge: The current location and size of the Ames Lab occupational medicine clinic may be inappropriate for expanding services to the entire campus employee population. Ideally, the occupational medicine clinic should be near x-ray services, near physical therapy, and have access to a clinical laboratory or a blood drawing station. This would argue for moving the clinic into the student health clinic, or close to it. I was unable to visit the student health clinic to assess geography, but combining occupational medicine into a student health clinic has been successful at a number of university student health services (e.g., UC Berkeley). Adequate parking should be factored in.
   i. Recommendation: a business analyst should be asked to estimate the necessary clinic size, evaluate the best location, and project patient flow for comprehensive campus occupational medicine services. (If resources are tight, this might make a good case study for a student at the business school).

d. Challenge: most occupational health services work closely with the risk management functions of their client organizations, and share case management responsibilities with the workers’ compensation claims administrators. I gathered from my visit that the workers’ compensation system in Iowa, at least for state agencies and universities in Iowa, is not conducive to efficient and cooperative communication and case management of occupational injuries. Lack of coordination in this area causes unnecessary expenses due to excessive time off, delays in arranging medical care, and bureaucratic communication delays. One red flag indicator of poor claims coordination identified during this visit was the complete lack of regular claims cost reporting to ISU and Ames Lab.
   i. Recommendation: ISU (including Ames Lab) should seek better control of its workers’ compensation claims management, and involve risk management in tracking expenses to measure the magnitude of current system inefficiencies,
and track progress towards claims cost reductions. This may require legislative activity. If so, this should be added to the legislative agenda of ISU.
e. The current model of shared funding for the occupational medicine clinic makes sense, but the proportions of funding allocated to ISU and Ames will need to be adjusted if the service volume shifts towards one institution or the other. A formal mechanism for this periodic adjustment should be established, trying to avoid the expense of fee-for-service billing, which carries a high administrative cost.

Summary

The observations and recommendations above should not be taken as critical of current occupational medicine services. The current staff is highly dedicated, and provides a complex mix of services to both Ames Lab and ISU. The major limitation the clinic faces is garnering enough resource to continue these high quality services in the environment of a small DOE lab. Expanding services to ISU employees provides an opportunity to expand the resource base and put the clinic on a more sustainable footing. In addition, the expansion of Ames Lab as an Innovation Hub for Critical Materials will add to the employee population served.

Thank you for this opportunity to learn more about the Ames Laboratory. I hope these comments are helpful in your review of the occupational medicine program.

Peter D. Lichty, MD MOH FACOEM