Safe and Healthy Workplace Environments Using Effective Occupational Medicine Management Systems

By Matt Noth
Introduction

Effective workplace occupational medicine management systems provide the structure to help ensure worker health protection, and integrates workplace safety and health into all aspects of an organization. Health and safety should be a core value and a driving force for operational and organizational sustainability. Identifying ways to incorporate health and safety into existing business processes will allow the protection of employees and assets to become a core value and driving force for operational and organizational sustainability.¹

OCCUPATIONAL MEDICINE

Occupational medicine is the branch of preventive medicine devoted to the prevention and management of occupational injury, illness and disability, and the promotion of health and productivity of workers.² It is a field of preventive medicine concerned with the medical problems and practices relating to occupations and especially to the health of workers in various industries.

While it may involve a wide number of disciplines, occupational medicine centers on the preventive medicine and management of illness, injury or disability that is related to the workplace.³ It involves the prevention among workers of departures from health caused by their working conditions and the protection of workers in their employment from risks resulting from factors adverse to health. Occupational Medicine is sometimes described as the adaption of work to people and of each person to their job.⁴

An effective occupational medicine management program should be structured around process workflows that incorporate both the management of employee medical needs as well as the assessment of groups. It should allow organizations to define medical surveillance protocols, which may serve as one of many initiating events for the scheduling of clinic visits.
Occupational Medicine is focused on the evaluation, treatment, and prevention of diseases and illnesses related to environmental and occupational exposures. Occupational Medicine practitioners:

- Treat job-related diseases
- Recognize and resolve workplace and environmental hazards
- Conduct research to understand and prevent illnesses and injuries related to the workplace and the environment
- Guide organizational occupational and environmental health policy

Occupational Medicine programs often include:

- Medical surveillance examination and review services
  - Medical surveillance protocols
  - Clinic Visit / Appointment Management
  - Exam results
- Pre-Employment / Post-Offer Exams and Evaluations
- Respirator Fit Testing and Program Management
- Medical reviews and consultation for managers and supervisors on employee injury / illness and worker’s compensation cases
- Walk-in occupational health center services
- Wellness services
- Occupational health consultation
- Drug and alcohol testing programs and oversight
- Ergonomics management
- Integration with Industrial hygiene, environmental health, Incident / Accident and Training / Competency Management
  - Including Exposure Assessments and similar exposure group (SEG) definitions
- Employee Assistance Programs (EAP)
  - Recognize potential and existing chemical, physical, ergonomics and biological hazards

Occupational medicine also needs to integrate with an organization’s industrial hygiene, incident / accident and training / competency management programs or processes for cross-discipline functionality as described further in this paper.
Occupational Medicine Program Elements

Classification of Occupational Medicine

Medical Surveillance
- Exams and health tests defined
- Medical Screening
- Frequency of tests
- Selection of screening tests and examination components
- Both individual and groups of employees (SEGs)
- Selection of personnel for surveillance
- Ergonomics Management

Medical Protocols
- Schedule / Appointments
- Notifications / escalations (ie. for missed appointments, etc.)
- Record all visit activities and testing results
  * Employee, employer, patients, laboratories & 3rd party providers
- Physical examinations

Clinic Visits / Appointments
- Employee records with medical surveillance activities & results
- Track and manage employee’s health compliance status
  * Interpretation and notification of test results

Medical Surveillance Plans
- Communication with employee’s health status
  * Notifications and summary reports

Communicating Results

Respirator Management
- Respirator Fit Testing and Program Management

Human Resources Processes
- Pre-Employment / Post-Offer Exams and Evaluations
- Drug and alcohol testing programs and oversight
- Medical reviews and consultation for managers and supervisors
  * Employee injury / illness (Return to Work)
  * Worker’s compensation cases

Health Promotion / Health Consultation / EAP
- Walk-in occupational health center services
- Wellness services
- Employee Assistance Programs (EAP)

Recordkeeping / Records Management
- Important in all phases of the program
- Often required by regulation
- Useful in legal challenges
MEDICAL SURVEILLANCE

Medical surveillance is the systematic assessment of employees exposed or potentially exposed to occupational hazards. This assessment monitors individuals for adverse health effects and determines the effectiveness of exposure prevention strategies. A medical surveillance program includes the analysis of both individual and aggregate surveillance data over time, with the goal of reducing and ultimately preventing occupational illness and injury. A comprehensive and integrated Medical Surveillance services program needs to include:

- **Medical Protocols**
  - Exams and health tests defined
    - Medical Screening
  - Frequency of tests
  - Selection of screening tests and examination components
  - Both individual and groups of employees (SEGs)
  - Selection of personnel for surveillance

- **Clinic Visits / Appointment Management**
  - Schedule / Appointments
  - Notifications / escalations (ie. for missed appointments, etc.)
  - Record all visit activities and testing results
    - Employer, patients, laboratories and third party providers
  - Physical examinations

- **Employee records with details of all medical surveillance activities and results**
  - Track and manage employee’s health compliance status
    - Interpretation and notification of test results
  - Communication with employee’s health status through notifications and summary reports

- **Recordkeeping**

- **Occupational health consultation**

An effective occupational medicine management program should be structured around process workflows that incorporate both the management of employee medical needs as well as the assessment of groups.
Medical Protocols

Within effective occupational medicine management systems, medical surveillance begins with the definition of medical protocols. A healthcare professional would define which exams and activities should be performed, and at what frequency, for a designated group of employees. Medical surveillance protocols often utilize the organization’s defined Similar Exposure Groups (SEGs) to facilitate the categorization of employees. Since an employee may be assigned to more than one SEG at a time, they may be subject to the requirements of more than one medical protocol.

The program should track and monitor the required frequency of each exam type for an employee. Also, using last exam dates recorded against that employee’s personnel record, the system should track and manage an employee’s compliance status. Upcoming and overdue exams should be communicated to the employee, the employee’s supervisor and the clinic.

Medical Screening

A medical screening examination as part of a medical surveillance program is one of several tools aimed at protecting workers who are exposed or potentially exposed to hazardous substances in the workplace. A medical surveillance program includes establishing exam content, performing occupational medical examinations, documenting results of examinations, informing the employee of the results of examination, following up abnormalities, counseling and education, and evaluating grouped data for trends and sub-clinical effects of exposure.8

The management system needs to allow for the development, modification and integration of exams or activities specific to the needs of each organization, including the ability to document the performance and results of medical exams and activities.

Clinic Visits / Appointment Management

As part of the program’s defined procedures, medical professionals should document all contacts (Encounter / Activity Log, etc.) between the clinic and their stakeholders, including patients, laboratories and third party providers. Appointment scheduling needs to be a part of the Occupational Medicine program that integrates email notifications of upcoming and missed appointments.

The defined and established medical surveillance protocols may serve as one of many initiating events for the scheduling of clinic visits. The outcomes of these visits, in terms of exam results, work restrictions or on-going care, can be evaluated and recorded as needed and defined by your program.
Developing a Medical Surveillance Plan

Development of a medical screening and surveillance plan is based on an assessment of the physical, biomechanical, biologic and/or chemical hazards to which employees may be exposed and which have the potential to cause adverse health consequences. Medical professionals should observe work processes in their entirety, evaluate job tasks, review material safety data sheets of relevant chemicals, discuss personal protective measures, conduct a medical literature review as needed and investigate all other relevant information necessary to achieve a full understanding of the hazards and exposures that are present. Published hazard exposure limits are available from a number of governmental and nongovernmental sources.9

Communicating Results

Feedback of individual and group results completes the surveillance cycle. Periodic meetings should be held to discuss group findings and their relevance to work-site hazards. These meetings should include relevant employer representatives, such as personnel involved in industrial hygiene, safety, environmental issues, on-site medical provision and management. The group report should address overall findings and trends (normal or abnormal), as well as information on sentinel health events or clusters of employees demonstrating some abnormal facet(s) of health. Recommendations for strategies to prevent or reduce the likelihood of adverse health effects should also be included in the report. The group findings should also be presented orally or in writing to the employees. An opportunity for discussion should be provided. The feedback process facilitates and encourages continuous review of work-site exposures and the health outcomes of such exposures, and it also provides a mechanism for continuously improving health and safety performance. As appropriate, action-planning steps should be established to remedy matters of concern.9

RESPIRATOR MANAGEMENT

For workplaces in which employees utilize respirators; organizations must manage the process of assessing whether or not an individual is capable of safely wearing the required PPE. The Respirator Management component of Occupational Medicine programs need to document and track the evaluations of employees. The process allows an employee, either on their own behalf or on behalf of a subordinate, to request an evaluation for a respirator. This request is submitted for review, and, if warranted, a respirator questionnaire may be issued to the employee. Upon receipt and review by healthcare professional, a medical evaluation may be arranged for an employee. If the employee is medically cleared, the healthcare professional can then document the resulting Respiratory Fit Test. The respirator management process needs to have a recorded and documented history of all approved respirators for each employee along with any use restrictions. The process may also incorporate notifications for the periodic review of an employee’s use of approved respirators.
RECORDKEEPING / RECORDS MANAGEMENT

Records are evidence of what happened, why and by whom. They underpin accountability and provide an essential means to meet legal / regulatory requirements and other organizational needs.

Records are a basic tool of occupational medicine management. Records provide information for effective metrics visibility, resource planning and decision making. They form the foundation for accountability and are often subject to specific regulatory requirements. Records are essential for effective and efficient administration, but if poorly managed they can become a liability, hampering operations, EHS compliance and misallocation of resources.

A summary of primary reasons why recordkeeping is an important aspect of occupational medicine management:10

- Important in all phases of the program
- Often required by regulation
- Increase program effectiveness
- Useful in legal challenges

All of these have an impact on the ability of an organization to meet both its internal and external accountability requirements and business needs, such as meeting occupational medicine program obligations.

Due to the high number of records typically generated by an occupational medicine system and the need for effective management and reporting of this data against employees and standards, such as medical protocol definitions, a management system will streamline and optimize the overall management of your workplace safety and health.

PERIODIC PROGRAM REVIEW

There are many reasons to review any management program, but several important reasons for measuring OM program effectiveness include:11

- Educate management to the elements of an OM program
- Educate management about the importance of OM in general
- Demonstrate value of OM program
- Provide management motivation towards continuous improvement of the program

Due to the high number of records typically generated by an occupational medicine system...a management system will streamline and optimize the overall management of your workplace safety and health.
Several things to consider for inclusion in your OM program review:

- Regular intervals (i.e., yearly, semi-annual, etc.)
- Review the written program as well as the implementation
- Updates for new regulations, new chemicals, new processes, or any changes
- Audit components of the program
- Internal safety “OSHA” inspection and audits
- Involve employees, consultants, management

Results of self-audits and external assessments are used to identify organization-wide occupational medicine program strengths and weaknesses and to target systemic problems for resolution.

**BENEFITS OF OCCUPATIONAL MEDICINE MANAGEMENT SYSTEMS**

The occupational medicine program and the occupational medicine process can serve your organization by reducing the costs for potential health-related claims and protect the workforce. Indirect advantages of the occupational medicine process lie in improvement of morale and productivity, as well as contributing to product and workplace quality improvement. Benefits of effective OM management programs include:

- Improve health and hygiene
- Reduce compensation
- Improve job satisfaction
- Reduce absenteeism
- Improve productivity
- Improve workers’ attitude towards management
- Regulatory Compliance

**CINTELLATE EHS**

SAI Global has worked with many leading organizations to assist them with their workplace health and safety programs, including fully implementing comprehensive industrial hygiene and occupational medicine programs using our fully integrated Cintellate EHS solution.
ABOUT MATT NOTH
Matt Noth, Environmental, Health & Safety Sales Specialist with SAI Global, has 15 years experience in engineering and EHS compliance management enabling him to provide guidance to organizations trying to bridge a gap between federal, state, and local regulatory obligations and their organization's business requirements. Matt holds a B.S. Mechanical Engineering from the University of Texas at Austin and an M.S. Environmental Management from Samford University in Birmingham, AL.

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