

Work or environment-related disorders? Three triage steps for physicians

Sir,

More and more often, physicians are at the front line of evaluating disorders caused by environmental or occupational factors. Major industrial or natural disasters, for instance, put any available hospital physicians at the front line of triage for such disorders (Zhang et al, 2010; Redlener and Reilly, 2012).

Another example is in a normal clinical situation where the work or environmental relationship is evoked by the patient (Tarlo and Lemiere, 2014; Saint-Lary et al, 2015). Although such practitioners are, by definition not specialists in environmental or occupational disorders, they must be ready to envisage an environmental cause when this is appropriate, or to rule one out.

A simple three-step methodology, based on aetiological epidemiology (Grimes and Schulz, 2002), is useful for distinguishing between excluded (or very unlikely), possible, or presumable, environment-caused disorders (*Table 1*). This method is just a

simplified version of the optimal evaluation of the basic environmental and occupational factors that might be involved. However, it helps the practitioner to exclude such a cause or refer the patient to an occupational or environmental specialist, both in difficult cases (i.e. those with intermediate probability: 'possible') and in cases where special individual care with cessation of exposure or collective management is needed.

This basic method for optimizing triage of suspected occupational and environmental disorders might be useful for all physicians.

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Grimes DA, Schulz KF (2002) Bias and causal associations in observational research. *Lancet* **359**(9302): 248–52 (doi: 10.1016/S0140-6736(02)07451-2)

Redlener I, Reilly MJ (2012) Lessons from Sandy-preparing health systems for future disasters. *N Engl J Med* **367**(24): 2269–71 (doi: 10.1056/NEJMp1213486)

Saint-Lary O, Rébois A, Mediouni Z, Descatha A (2015) Carpal tunnel syndrome: primary care and occupational factors. *Front Med* **2**: 28 (doi: 10.3389/fmed.2015.00028)

Tarlo SM, Lemiere C (2014) Occupational asthma. *N Engl J Med* **370**(7): 640–9 (doi: 10.1056/NEJMra1301758)

Zhang J, Mauzerall DL, Zhu T, Liang S, Ezzati M, Remais JV (2010) Environmental health in China: progress towards clean air and safe water. *Lancet* **375**(9720): 1110–19 (doi: 10.1016/S0140-6736(10)60062-1)

Table 1. Three steps for practitioners

Carry out the diagnosis of the disorder: What is the diagnosis retained after thorough examination (and after ruling out any differential diagnoses)?	This is not something specific to work or environment-related disorders, but it is important to bear in mind that this is the first and mandatory step
Consider existing knowledge: What possible exposures have been reported for such disorders in medical databases?	By searching Pubmed and another general medical database (e.g. Scopus, Google Scholar) based on the name of the suspected disorder, and the words 'environmental' OR 'occupational' By identifying possible exposure and the level of evidence for a potential relationship in published studies, highlighting from relevant sources: dose-exposure relationship, timing of onset, threshold), other co-exposure and morbidity
Verify the coherence of such an association: Is the disorder, or is it not (or unlikely to be) related to the identified exposure, possibly related ('possible', but further investigations are needed before action), or probably related ('presumable', which means that actions are necessary individually and collectively)?	Temporality and dose-effect relationship? Are the timing and dose coherent with present knowledge? For instance, onset of disease is usually delayed for chronic disorders, increasing dose is related to immediately increasing symptoms in case of acute disorders Analogy/consistency of effect? Do other known cases with similar exposures show similar disorders? Specificity of association? Is there no better explanation of such an association (consider also the possibility of potential interaction and multi-aetiology disorders)?

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