Container incidents, a serious problem or a media hype?

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Introduction
Yearly 2-3 million containers enter Dutch ports, 10-20% of these containing fumigants like methyl bromide, phosphine, 1,2 di-chloroethane, toluene, benzene and formaldehyde. Over the years, the risk of exposure to these gases, has received increasing media attention, suggesting serious health risks for employees and consumers. In 2007 news items on container incidents were published on 8 individual days in the year but by 2009 this had increased to 31 days. In this period, the annual number (circa 9) of consultations to the Poisons Information Center did not change. Poisons centers in Germany and Switzerland reported comparative numbers, although this was considered to be an underestimation. The apparent discrepancy between the scope of these incidents in the media and the number of consultations at our poisons center warranted further research towards the extent and severity of container related incidents.

<table>
<thead>
<tr>
<th>Year</th>
<th>Consultations to the DPIC</th>
<th>Days on which news items were published</th>
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<tbody>
<tr>
<td>2007</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>2008</td>
<td>10</td>
<td>24</td>
</tr>
<tr>
<td>2009</td>
<td>11</td>
<td>31</td>
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Methods
In 2010 preparations to further research were made in close cooperation with Dutch labour organizations active in the field of transport and shipping containers. Announcements were regularly placed on their websites and in their newsletters, encouraging employees to contact the poisons center in case of (presumed) exposure to container gases. From January 2011-October 2012 all consecutive cases were followed-up by telephone, using a standardized questionnaire for clinical symptoms and exposure conditions.

Results:
1. The poisons center recorded 14 incidents; 24 of 33 involved employees were interviewed.
2. The mean reasons for exposure:
   - lacking information about fumigation.
   - lack of procedures before opening the containers.
3. The reported health effects were minor
   - upper-airway irritation, nausea, vomiting, headache and dizziness
   - in addition there was concern about long-term effects.
4. In this period media coverage decreased to a few items annually.

Conclusion:
Drawing attention to this project very likely increased workers’ awareness of the risks of handling containers, however to our knowledge this did not result in a change in working procedures. The annual number and severity of incidents reported to the poisons center did not change compared to previous years.

Therefore, although underestimation is common in occupational settings, we believe this study shows there is not a significant medical problem associated with exposure to container gases. In the study period the media coverage dropped, most likely indicating a media-hype in previous years.