Vitalograph is a world leading provider of outstanding quality respiratory diagnostic devices, clinical trial services and medical equipment servicing. With a pioneering heritage of excellence spanning half a century Vitalograph continues to make valuable contributions to effective medical care and enhanced quality of life.

OASYS with Vitalograph
asma-1 usb monitor

Occupational Asthma expert SYStem

Objective methods of diagnosis are vital in confirming cases of occupational asthma and serial tests provide a low cost and effective solution.

What is OASYS?

OASYS (Occupational Asthma expert SYStem) is free to use software that has proven to be a sensitive and expert tool for detecting work related changes in peak expiratory flow readings. OASYS has been developed by Midlands Thoracic Society and is available for download from their website www.occupationalasthma.com. This simple to use system combats many of the difficulties associated with visual analysis of records: it also supports effective asthma management and provides validated evidence for occupational asthma related insurance claims.

OASYS has been developed by world leaders in occupational medicine and provides:

- Automated data capture, archiving and analysis
- Accurate and reliable asma-1 usb data download
- Validated Work Effect Index of work related asthma

How does OASYS work?

OASYS is a computer diagnostic occupational asthma expert system which assesses the probability of an individual having work-related asthma.
The OASYS program scores each rest-work-rest or work-rest-work complex in a serial peak flow record between 1 and 4.

<table>
<thead>
<tr>
<th>OASYS Score</th>
<th>Probability of Occupational Asthma</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&lt; 1%</td>
</tr>
<tr>
<td>2</td>
<td>1% - 49%</td>
</tr>
<tr>
<td>3</td>
<td>50% - 99%</td>
</tr>
<tr>
<td>4</td>
<td>&gt; 99%</td>
</tr>
</tbody>
</table>

OASYS consists of the following modules:

- A module for allowing entry of PEF readings recorded by the patient for either manual entry of PEF data or automatic capture of PEF data from the Vitalograph asma-1 USB respiratory monitor
- A module to plot these recordings in a graph format. These graphs include a plot of mean PEF for each two hour period separated into work/rest days and plots of daily maximum, minimum and mean readings again divided into work and rest periods
- A module to calculate scores indicating how likely it is that an occupational asthma diagnosis will be supported by this data

Vitalograph are pleased to support this work and have developed an interface to allow use of the asma-1 with OASYS. A donation from the sale of each asma-1 device developed an interface to allow use of the asma-1 with OASYS. A donation from the sale of each asma-1 device will be used to support this work and have developed an interface to allow use of the asma-1 with OASYS. A donation from the sale of each asma-1 device.

### Technical Specification for asma-1 usb:

- **Model Number:** 4000
- **Product:** Respiratory Monitor
- **Parameters Displayed:** PEF & FEV₁
- **Accuracy:** Better than PEF +/-5%, FEV₁ +/-3%
- **Sensor:** Stator rotor
- **Flow Impedance:** Better than 0.15 kPa/L/s at 14 L/s
- **Power Supply:** AAA batteries
- **Size:** 113 x 63 x 48mm
- **Weight:** 55g

### Ordering Info:

- **OASYS software:**
- **asma-1™ usb no software:**
  - 40448 4000 Respiratory Monitor
  - 28350 2820 BFV Bacterial/Viral Filters
  - 2024 2024 SafeTway™ mouthpieces
  - 20980 2024 SafeTway™ Mini mouthpieces
  - 2030 2030 Noseclips

### Selected References:

4. The diagnosis of occupational asthma from serial measurements of lung function at and away from work. P. Bright, P.S.Burge: Thorax 1996; 51: 857-863
10. Burge CBSG, Moore VC, Pantin CFA, Robertson AS, Burge PS, Diagnosis of occupational asthma from time point differences in serial PEF measurements, Thorax, 2009; 64: 1012-1016