

# "DOCTOR AT SEA" a monthly Column in The Islander Magazine

## Asthma

This is such a common condition that most of us will know someone who is affected. It can still be a killer but fortunately there are very effective forms of treatment these days.

The underlying problem is difficulty breathing caused by airways narrowing and airways congestion. The airways often narrow in response to an outside allergic stimulus such as pollen or the hairs of some animals such as cats. The congestion factor is caused by inflammation within the airways and produces sticky mucus material. This simply blocks the tubes but the combined effect of airways narrowing and airways congestion leads to increased difficulty with breathing.

The individual starts to wheeze (a high pitched noise on breathing out) and may have difficulty getting their words out. It is possible to grade the degree of breathless semi-quantitatively by observing a person's speech ranging from the ability to speak in complete sentences through speaking in parts of sentences through to an inability to speak much at all. In the advance stage of severe asthma the person is desperately using their neck muscles to pull their rib cage open but the lungs will have gone critically silent and time may be short. In children this can be seen as the ribs sucking in rather than expanding as they attempt to breathe.

Fortunately most people do not reach these emergency conditions and their relatively mild condition is managed with an inhaler which allows delivery of medication to open up the narrowed airways - a reliever medication - usually a blue inhaler called Ventolin or, chemical name, salbutamol. The congestion is eased by inhalers usually containing anti-inflammatory steroids - a preventer medication - usually a brown inhaler called Becotide. The relievers work within minutes whereas the preventers take several hours and should be taken regularly to maintain control. The general rule is to use the relievers as often as is necessary each day to ensure that the preventer inhaler is not needed every single day. Some people who have only mild asthma will only need a reliever inhaler now and again and little else, perhaps before exercise or just when they have a cold.

Most people on medication know how to adjust their doses in case of, for instance, a common cold. Occasionally control is lost and stronger medication such as steroid tablets and maybe oxygen are required (anyone who becomes distressed due to asthma can benefit from oxygen treatment). These stronger emergency measures could be needed onboard when guests have left medication at home or become more cavalier about their care when on holiday.

Crew members ought not to be susceptible to this kind of emergency and its aggressive treatment because the MCA guidelines on asthma are careful and someone with unstable asthma cannot normally hold an unrestricted ENG1 certificate. The guidelines are relatively straightforward for individuals who have left their asthma behind in teenage but a number still cling to their inhalers long after maybe they do not need them and it is important to establish how necessary it is to have ongoing medication. The absence of any emergency crises involving oral steroids or hospital admission all help to make a favourable decision.

It is still surprising to me to come across ENG1 candidates with an asthma history and who have started to smoke - "fanning the flames" springs to mind - not only is it harmful in the short and long term but might impinge on fitness to go to sea. Fortunately the seafaring existence takes people away from pollen and small animals for much of the time and the low dust levels on luxury yachts is another advantage although dry air-conditioning can be unhelpful.

It is quite common to find asthma in children and young adults coexisting with hay fever and with a form of eczema affecting the creases on the limbs ie in front of the elbows and behind the knees. This condition is called atopy and atopic individuals generally have all three conditions to a greater or lesser extent. This predisposition is *intrinsic* and has a strong hereditary component but some people acquire *extrinsic* asthma in adult life as a result of exposure to certain materials such as glues and resins used in curing epoxy resins, or electronic soldering flux, or wood dusts in sawmilling or woodworking, or flour/grain/hay handling at docks/milling/malting/baking, isocyanates in vehicle spray painting or foam manufacturing - the list goes on and on. These occupational causes are well recognised and strenuous efforts need to be made to avoid exposure and possible sensitisation because, once sensitised, a person can be symptomatic with trace exposure.

Asthma is one of those common chronic diseases which can occasionally become acute and frightening. Management of both the chronic and acute phases is covered in MCA Approved Courses devoted to Medical Care Onboard Ship and some knowledge can clearly be crucial when that unexpected emergency arises.

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