

further investigation or opinion. Indications for diving fitness have too long been left to the physician's personal prejudice, resulting in a wide variation of views, which therefore gave little credibility in the diving industry.

Conclusion

In 2,051 diving medicals 221 reasons for failing diving medicals were recorded in 200 potential divers giving an overall failure rate of 10%. Forty seven different reasons for failing the diving medical have been listed. Nine percent of divers have more than one reason for failing. A handbook of specific indications and cut off points for failure, further investigation or referral should be compiled.

References

- 1 *Australian Standard AS 2299 - 1979 Underwater Air Breathing Operations*. North Sydney: Standards Association of Australia, 1979
- 2 Parker J. Review of 1,000 sports diving medicals. *SPUMS J* 1990; 20(2): 84-87

Acknowledgements

The author sincerely wishes to thank Mrs Janette Downes for assistance in collating the data.

Dr J Parker's address is P.O. Box 207, Airlie Beach, Queensland 4802, Australia.

THE ASSESSMENT OF THE PADI RESORT COURSE QUESTIONNAIRE

John Parker

Introduction

It is common practice for people undertaking scuba introductory or resort courses to go scuba diving without a diving medical, only completing a questionnaire on their health. The commonest diving instructor body undertaking resort courses in north Queensland is the Professional Association Diving Instructors (PADI). In the 1990 "PADI DISCOVER SCUBA AND INTRODUCTORY COURSE STATEMENT" sixteen questions are asked, preceded by the statement in bold letters "**If any (1-16) of these items do apply we regret that you must consult a physician prior to partaking in a scuba experience**". I used the information given in the Australian Standard AS2299 question-

naire¹, from 2,051 consecutive initial sports diving medicals, to complete an introductory course questionnaire for each diver to assess the efficacy of the resort course questionnaire.

Method

From the information given in their AS2299 diving medical questionnaire (and only that information) I completed the PADI course statement for all 2,051 divers. The questions appear in Table 1.

Results

Of the 2,051 divers 673 (33%) failed the resort course questionnaire and should have consulted a physician. Of these 673 divers only 142 (7%) actually failed the full diving medical I performed. Ironically only 106 (5%) failed the medical for the actual reason shown on the PADI questionnaire, the rest having problems not identified by the questionnaire. Hence the questionnaire only predicted 53% on the actual failures. See Table 2.

Discussion

The resort course questionnaire predicted 53% of failures compared to the AS2299 diving medical questionnaire which, when combined with an interview, predicted 63% of failures.² Questionnaires alone are therefore not a good predictor of diving fitness.

Discussion with local diving operators indicate that very few divers actually fail the resort course questionnaire. Certainly in 10 years of diving medical practice I have not had many divers referred for failing their resort course questionnaire. This may indicate that:

- 1 The diver, being warned that ticking a box in the questionnaire requires them to have a full diving medical with its additional cost and inconvenience, is encouraged to answer falsely.
- 2 The requirement of only having to indicate in the affirmative encourages people to miss things out. Having to state either a "yes" or "no" is more discriminating.
- 3 People are more honest in questionnaires when they know it will be followed by an interview.
- 4 Diving instructors make medical judgements on the questionnaire and override the statement that any positive response must eventuate in a physician's consultation.
- 5 I exaggerated their medical conditions in my comple-

TABLE 1
PADI QUESTIONS

- 1 I am currently suffering from cold or congestion
- 2 I am currently taking medication
- 3 I have a history of respiratory problems or disease
- 4 I am diabetic
- 5 I have a history of heart condition
- 7 I currently have an ear infection
- 8 I have recently had an illness or operation
- 9 I have a history of a sinus problem
- 10 I am pregnant
- 11 I have asthma, emphysema or tuberculosis
- 12 I am claustrophobic
- 13 I smoke a pack of cigarettes or more a day
- 14 I have had difficulty with my ears
- 15 I have a nervous system disorder
- 16 I am under the care of a physician or have a chronic illness

tion on the questionnaire.

The PADI questionnaire can certainly be improved but still many people would be scuba diving who are not considered fit.

The commonest diving injury to such divers is aural barotrauma from pre-existing upper respiratory tract and aural problems. But the presumed greatest danger will be from pulmonary barotrauma in persons with lung infections, undiagnosed asthma or other lung diseases.

This danger can be reduced by taking the resort diver underwater in calm still water, under the strict supervision of

a diving instructor. However, the dangers are increased because of the absence of any substantial training resulting in a higher risk of panic and uncontrolled ascents.

To require all divers in a resort course to have a full diving medical would decimate the diving tourist industry in North Queensland and prevent a large number of tourists from having first hand experience of the Great Barrier Reef and the joys of scuba diving.

To stop the present practice of only having a health questionnaire would necessitate evidence, not only of the potential dangers but of actual cases of injury or death. At present there are no such reliable data on the morbidity or mortality of the resort course. In the meantime the questionnaire needs to be revised.

Conclusion

The PADI questionnaire is a poor discriminator of scuba diving fitness, identifying only 53% of divers who should have failed.

References

- 1 *Australian Standard AS 2299 - 1979 Underwater Air Breathing Operations.* North Sydney: Standards Association of Australia, 1979
- 2 Parker J. The Diving medical and reasons for failure. *SPUMS J* 1991; 21 (2):80-82

Dr John Parker's address is P.O. Box 207, Airlie Beach, Queensland.

TABLE 2
COMPARISONS BETWEEN PADI QUESTIONNAIRE AND THE FULL DIVING MEDICAL IN 2051 DIVERS

	Number	% of "Failures"	% of Total
Failed the questionnaire	673		33
Failed the questionnaire and failed the full medical for the right reason	106	16	(5)
Failed the questionnaire and failed the full medical but for the wrong reason	36	5	(2)
False failures			
Failed the questionnaire but passed the full medical	531	79	(26)
Passed the questionnaire	1,378		67
Passed the questionnaire and passed the full medical	1,284		(62.5)
False passes			
Passed the questionnaire and failed the full medical	94		(4.5)
Totals	2,051	100	100