

9. DIVING DOCTOR'S DIARY

DIVING DETAILS - Trainee divers, performing buddy breathing at depth of 10 and directional signals of 30 feet.

Duration - 90 minutes.

Time - 1030 hours.

Presenting Symptom - Gross shivering at 1130 hours

(CORRECT DIAGNOSIS - 100%)

MEDIC: Are there any other symptoms?

DIVER: Yes. I feel cold, the shivering comes on whenever I stand up, walk or when I go into the cold (outside temperature = 70° F!). I feel better when I rest, and especially with a hot shower.

(CORRECT DIAGNOSIS - 80%)

DIVER: I also get very breathless and feel faint whenever I exercise. it was not noticeable after the dive, but it probably started about the same time as the shivering.

MEDIC: Any cough?

DIVER: I coughed up some white sputum immediately on ascent. I am coughing a bit now. I also feel a bit nauseated now. There are aches in my back and thighs, but these are not related to movement - I feel as if I had a bad attack of influenza.

(CORRECT DIAGNOSIS - 60%)

MEDIC (at 1430): Let's have a look at the lab results:

- Chest X-ray - patchy consolidation areas in both lungs
- FEV_{1.0}/VC - both decreased by 1.0-1.2 litres compared to normal
- white cell count - 14,000 with polymorphonuclear leucocytosis
- lactic dehydrogenase - 500 IU
- arterial O₂ - 60mm Hg, CO₂ 40mm Hg, pH 7.35 at 1145 hours.

MEDIC:How are you now?

DIVER:Much better. When you let me breathe 100% O₂ at 1200 hours I felt completely normal. Even without it, I know I am getting better.

(CORRECT DIAGNOSIS - 50%)

MEDIC: (at 1830 hours) Your lung function (FEV_{1.0} and VC) are now back to normal. Your TPR is 3.70/86/18, and your lungs sound normal.

DIVER: Yes, I am much better. I cannot understand what happened. It was a normal dive, and I had no trouble.

MEDIC: How about the buddy breathing?

DIVER: I did not do any emergency ascents. I took in a bit of water - otherwise things were OK.

(CORRECT DIAGNOSIS - if not, give up)

DIVING MEDIC: This is a fairly typical case of salt water aspiration, and is a common accompaniment of 'buddy breathing'.

ANNUAL AND INITIAL MEDICAL EXAMINATION (BASIC STANDARDS OVERLEAF)

1. SURNAME		OTHER NAMES		2. AGE	3. SEX	4. OCCUPATION
5. ADDRESS - private		business		6. NEXT OF KIN		7. ADDRESS OF N.O.K.
8. BUILD	9. HT. ins	10. WT. lbs.	11. CHEST exp. insp.	12. COLOUR eyes hair complexion		13. RESP. FUNCTION TESTS v.c. f.e.v.1 percentage
14. CHEST X-RAY date	film no.	place	normal	15. BLOOD PRESSURE systolic	16. URINALYSIS albumin	sugar
17. AUDIOMETRIC EXAMINATION		I.S.O. STANDARDS		18. COLOUR PERCEPTION		
cycles	500	1000	2000	4000	6000	8000
decibel loss rt.						
decibel loss lt.						
19. Head, face, neck, scalp	norm.		abnorm.	51. NOTES ON ANY ABNORMALITIES DETECTED		
20. Nose and sinuses				43. Gait	norm.	abnorm.
21. Mouth, throat, speech				44. Lymphatic system		
22. Teeth, gums				45. Emotional stability		
23. Bats General				46. Mental capacity		
24. Tympanic membranes				47. Identifying marks		
25. Eustachian tubes				48. Nervous system reflexes		
26. Eyes General				cranial n's		
27. Visual field				sensation		
28. Eye movement				cerebellar funct.		
29. Ophthalmoscopy				49. VISION		
30. Chest, lungs				distant R6 -	corr 6 -	
31. Heart General				I6 -	to 6 -	
32. E.C.G. Rest & Exercise				near RD = 0	corr 0	
33. Vascular system				ID = 0	to 0.	
34. Abdomen (incl. H.O.s)				50. INNOCULATIONS	current	outdated
35. Anus				tetanus		
36. Endocrine system				smallpox		
37. External genitalia				cholera		
38. Upper extremities				typhoid		
39. Lower extremities				polio		
40. Feet				yellow fever		
41. Spine				b.c.c.q.		
42. Posture (standing)						
				52. FITNESS TO FIT UNFIT		
				(May be continued over-leaf)		
				NAME OF M.O. -		
				ADDRESS -		
				QUALIFICATIONS -		
				DATE -		
				SIGNATURE -		

BASIC STANDARDS REQUIRED

(1) Respiratory

- (a) Good respiratory function tests
V.C. > 4 litres (males) or 3 litres (females)
% FEV_{1.0} must not be < 75% of the VC
- (b) D-Ray of chest must be full plate (PA)
- (c) A history of severe respiratory obstructive
airway disease (asthma, bronchitis,
emphysema) unless all is completely normal,
must be unacceptable.
- (d) Any acute resp. condition will restrict
diving until cleared.

(2) VISUAL

- (a) Distant vision should not be worse than
6/12 (both eyes) or 6/24 (worse eye)
- (b) Hypermetropia present in each eye (without
mydiatics) should not exceed 5.0 dioptres
- (c) Colour vision, unless grossly abnormal, is
not of great importance
- (d) Near vision should not exceed N 5/6 in both
eyes.

(3) AUDITORY

- (a) The maximum allowable decibel loss in the worst
ear using I.S.O. standards is

500cps	1000cps	2000cps	4000cps	6000cps	8000cps
40 db	35 db	35 db	45 db	50 db	50 db

- (b) A history of severe chronic otitis media or
mastoid operation will preclude diving. Any
acute infection will restrict diving activities
until cleared
- (c) Both tympanic membranes must be intact and
mobile. Eustachian tube patency (Valsalva
test) is essential

(4) CARDIOVASCULAR SYSTEM

- (a) Blood pressure should not exceed
140 mm Hg systolic and 90 mm Hg
diastolic
- (b) Persons over the age of 35 should
be advised not to take up diving
activities
- (c) Weights should be within 20% of the
average for height and build (see
tables)
- (d) Harvard step test is useful.

(5) NEUROLOGICAL

- (a) No serious signs or symptoms are
acceptable.
- (b) Migraine is acceptable but this may
be precipitated more frequently by
diving.

51. (Continued)