

## SYSTEM SPECIFIC REASONS FOR REJECTION—RESPIRATORY SYSTEM

1. **General.** Respiratory disorders will interfere with the cardiorespiratory effort required for military training. Inadvertent exposure to fumes, smoke, excessive dust, sea-spray, or even breathing cold, dry oxygen may exacerbate or aggravate a respiratory condition. Respiratory disorders will result in the inability to function in certain military environments eg aircraft, diving or submarines. Again, if serving in a remote area where medical support is limited, a sudden exacerbation of a respiratory condition may compromise the individual and fellow personnel.

2. Asthma management has improved considerably in recent years and this has permitted a liberalisation in the asthma standards. However, experience has shown that on many occasions the once dormant asthma is exacerbated in an area with a high pollen count, cold climate or other respiratory irritants. This may be predicted by a borderline or mild bronchial hyper-responsiveness on challenge testing, and the challenge test is a useful adjunct to establishing the severity of an applicant's asthma. Although the opinion of respiratory physicians is sought and acknowledged, often their knowledge of military operations and field conditions and requirements is limited. A specialist with military knowledge is preferred when seeking opinion of an applicant's respiratory condition.

### Specific problems

SERIAL	CONDITION	CONSIDERATIONS	CLASS
1.	<b>CONGENITAL</b>		
1.1	<b>Cystic fibrosis</b>	Requires intensive and daily chest physiotherapy. Decreased exercise tolerance. Regular specialist review. Increased risk of respiratory infections in military environment.	4
2.	<b>FUNCTIONAL</b>		
2.1	<b>Pneumothorax</b>	<b>Divers/Submariners</b> Once a pneumothorax has occurred, risks still exist for an adverse event in diving and submarines. As the outcome is possible Cerebral Arterial Gas Embolism this presents an unacceptable risk for professional diving. Any history of pneumothorax is disqualifying for divers and submariners.	4
2.1.1	<b>Spontaneous pneumothorax single episode</b> (includes aircrew)	Once one has occurred, there is a greatly increased chance of recurrence.	
	Within three years of the episode		3T/4
	More than three years symptom free	<b>Additional information required</b> Respiratory physician or thoracic surgeon opinion.	3R
		<b>Decision</b> If no functional abnormality.	1
		<b>Divers/Submariners (see serial 2.1)</b>	4

SERIAL	CONDITION	CONSIDERATIONS	CLASS
2.1.2	<b>Recurrent pneumothorax</b>	The applicant should be excluded until definitive therapy is carried out.	3T
	More than six months post-surgery.	<b>Additional information required</b> Respiratory physician or thoracic surgeon opinion.	3R
		<b>Decision</b> Normal spirometry. Normal examination. Normal hypertonic saline challenge test. No medication.	1
	If surgical treatment declined		4
		<b>Aircrew/Divers/Submariners (see serial 2.1)</b>	4
2.1.3	<b>Pneumothorax or haemothorax due to surgery or trauma</b>		
	Within 12 months of episode		3T
	More than 12 months since the episode	<b>Additional information required</b> Specialist opinion.	3R
		<b>Decision</b> Acceptance will depend on history and recovery. The lung should have no inherent weakness and healing will return the lungs to normal. If an effusion is present then it depends on what pleural abnormality persists.	1/4
		<b>Aircrew Divers/Submariners (see serial 2.1)</b>	4
2.2	<b>Deformities of the chest</b>		
2.2.1	<b>Minor pectus excavatum or carinatum</b>	<b>Decision</b> If asymptomatic with physical exertion.	3R/1
2.2.2	<b>Moderate deformity</b>	<b>Additional information required</b> Specialist opinion. Investigate with chest X-ray (CXR) and respiratory function tests to exclude Marfan's syndrome or other conditions.	3R
		<b>Decision</b> Normal investigations.	1
	If interferes with respiratory efficiency	Decreased exercise tolerance possible with symptomatic applicants.	4
2.3	<b>Asymptomatic bullae</b>	<b>Additional information required</b> Respiratory physician assessment. If the risk of spontaneous pneumothorax is high, manage as spontaneous pneumothorax.	3R
		<b>Aircrew/Divers/Submariners</b>	4
2.4	<b>Pleural effusion</b>		
	Single episode and fully recovered (eg broncho-pneumonia).	<b>Additional information required</b> Respiratory physician assessment.	3R/1
	Pleural effusions associated with pathology.	Incompatible with military service.	4
3	<b>INFECTIVE</b>		

SERIAL	CONDITION	CONSIDERATIONS	CLASS
3.1	<b>Tuberculosis (TB)</b>	Generalised infection.	4
3.1.1	<b>Pulmonary TB</b>		
3.1.1.1	<b>Active</b> More than 12 months after completion of treatment		4
		<b>Additional information required</b> Assessment by a respiratory physician to confirm treatment complete.	3T/3R
		<b>Decision</b> If the candidate is considered cured.	1
		If treatment was incomplete or inadequate. Possible risk of spread.	4
		<b>Aircrew</b> Any history of primary or treated TB.	4
		<b>Divers/Submariners</b> Requires respiratory physician assessment and confirmation by Officer in Charge Submarine Underwater Medicine Unit (OIC SUMU).	3R
3.1.1.2	<b>Latent TB infection</b>	<b>Additional information required</b> Evidence of successful treatment or normal CXR eighteen months (or later) after diagnosis.	3R/1
		<b>Aircrew/Divers/Submariners</b> Any history of primary or treated latent TB.	3R
3.2	<b>Bronchiectasis</b>		4
3.3	<b>Haemoptysis</b>	May not be a symptom of underlying respiratory illness (eg nasal infection) but should be investigated if serious illness clinically suspected. Class determined by underlying diagnosis.	3R
4.	<b>INFLAMMATORY Chronic Obstructive Pulmonary Disease (COPD)</b>	COPD includes asthma, chronic bronchitis and emphysema.	
4.1	<b>Asthma</b>	Refer <a href="#">appendixes 1 to 5</a> .	
4.2	<b>Emphysema.</b> Emphysema is characterised by abnormal permanent enlargement of the airspaces distal to the terminal bronchioles with destruction of their walls and without obvious fibrosis.		4
4.3	<b>Chronic bronchitis.</b> Chronic bronchitis is characterised by chronic productive cough for at least three months in each of two successive years for which other causes have been excluded.		4
5.	<b>OTHER</b>		

SERIAL	CONDITION	CONSIDERATIONS	CLASS
5.1	<b>Sarcoidosis.</b> Sarcoidosis is a multi system disorder characterised in affected organs by a type of inflammation called granulomas. The cause is unknown. It may affect almost any organ of the body but lungs, skin, and eyes are the most frequently involved.		
	In complete remission for at least two years	<b>Additional information required</b> Respiratory physician assessment including respiratory function test with normal CXR and normal electrocardiogram.	3R
		<b>Decision</b> May be acceptable if normal lung function and no evidence or history of extra or intra-thoracic disease.	1
	Active disease or ongoing treatment.	Risk of cardiac and other complications.	4
		<b>Aircrew</b> (any history)	4
	<b>Divers/Submariners</b> May be acceptable if no extra or intra-thoracic disease. Must discuss any history with OIC SUMU.	3R	
5.2	<b>CXR abnormality</b>	Address with Chief Medical Officer Defence Force Recruiting (CMO DFR). <b>Additional information required.</b> May require follow-up investigations including respiratory physician assessment to exclude significant pathology, eg old tuberculous scarring.	3R
5.3	<b>Any other respiratory condition which is not listed in this annex. Includes active or chronic conditions</b>	Address with CMO DFR. <b>Additional information required.</b> Full clinical history, specialist reports, respiratory function tests and investigations must be provided for consideration.	3R

**Table 6B-1: Conditions of the respiratory system**

**Appendixes:**

1. [Asthma](#)
2. [Screening process for Asthma](#)
3. [Hand out candidates diagnosed with intermittent or mild persistent Asthma—Navy](#)
4. [Information sheet—candidates diagnosed with intermittent or mild persistent Asthma—Army](#)
5. [Information sheet—candidates diagnosed with intermittent or mild persistent Asthma—Air Force](#)

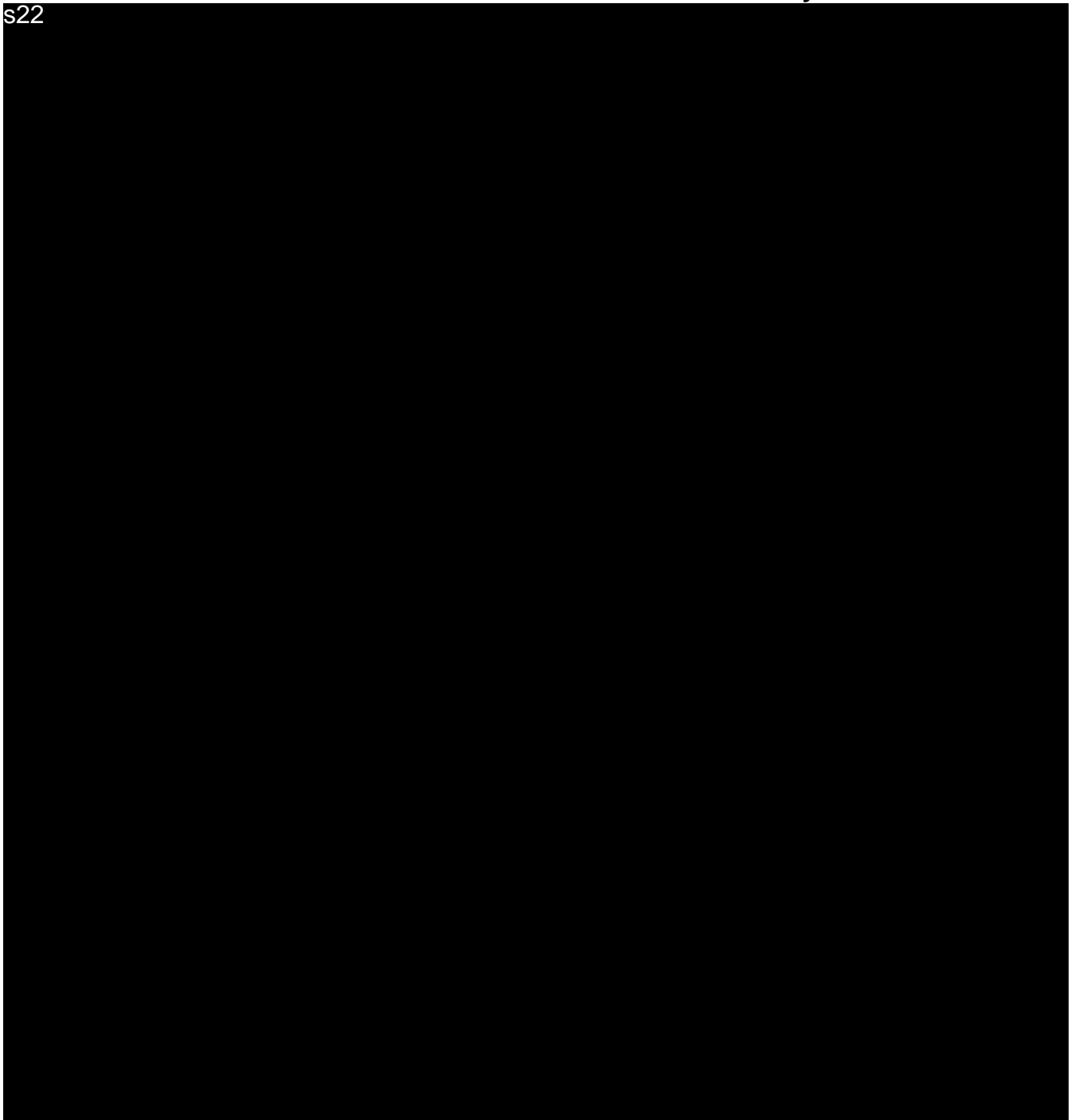
## ANNEX 6H

**SYSTEM SPECIFIC REASONS FOR REJECTION—  
ENDOCRINE AND METABOLIC SYSTEMS**

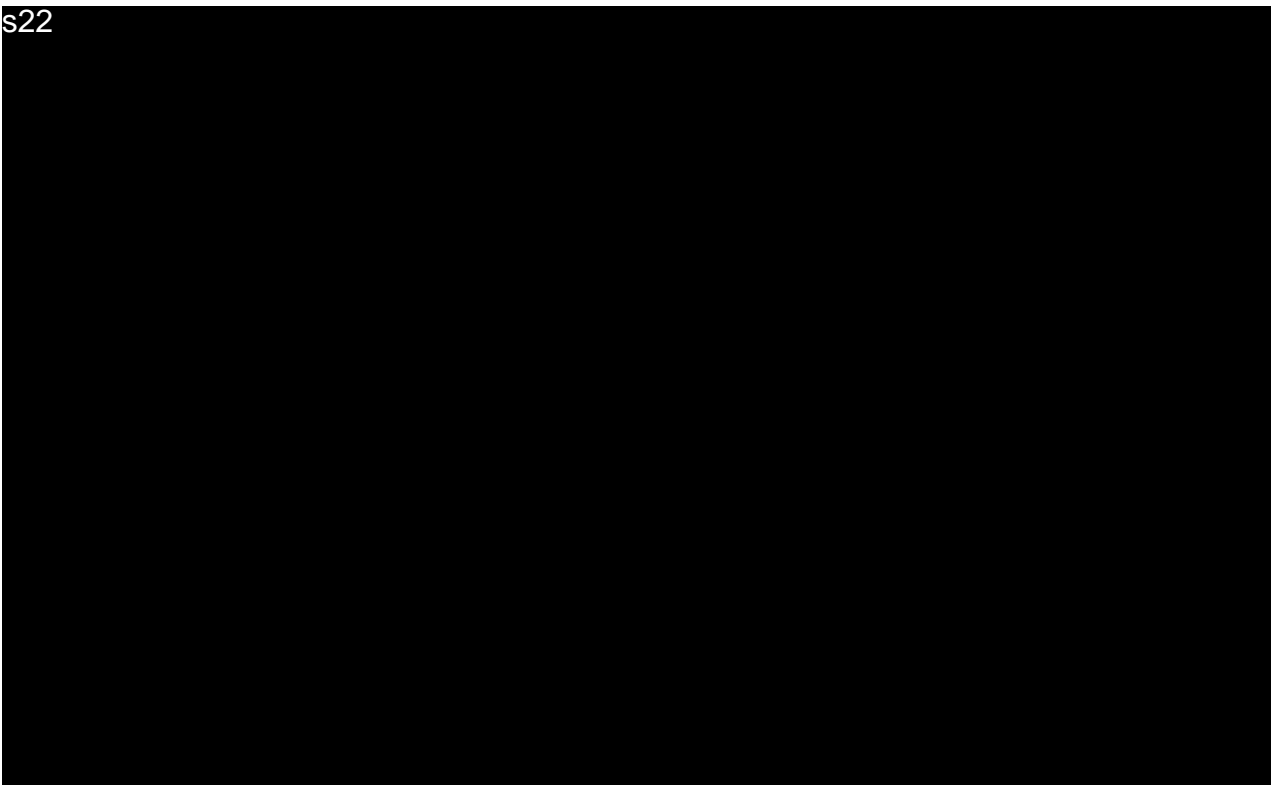
1. **General.** Poor living conditions, limited access to fresh food and reliance on combat rations, lack of hygiene, extremes of climate and minimal transport and medical support are common in the operational area. Physical and emotional stress may also affect the endocrine system.

**Specific problems****Table 6H.1: Conditions of the endocrine and metabolic systems**

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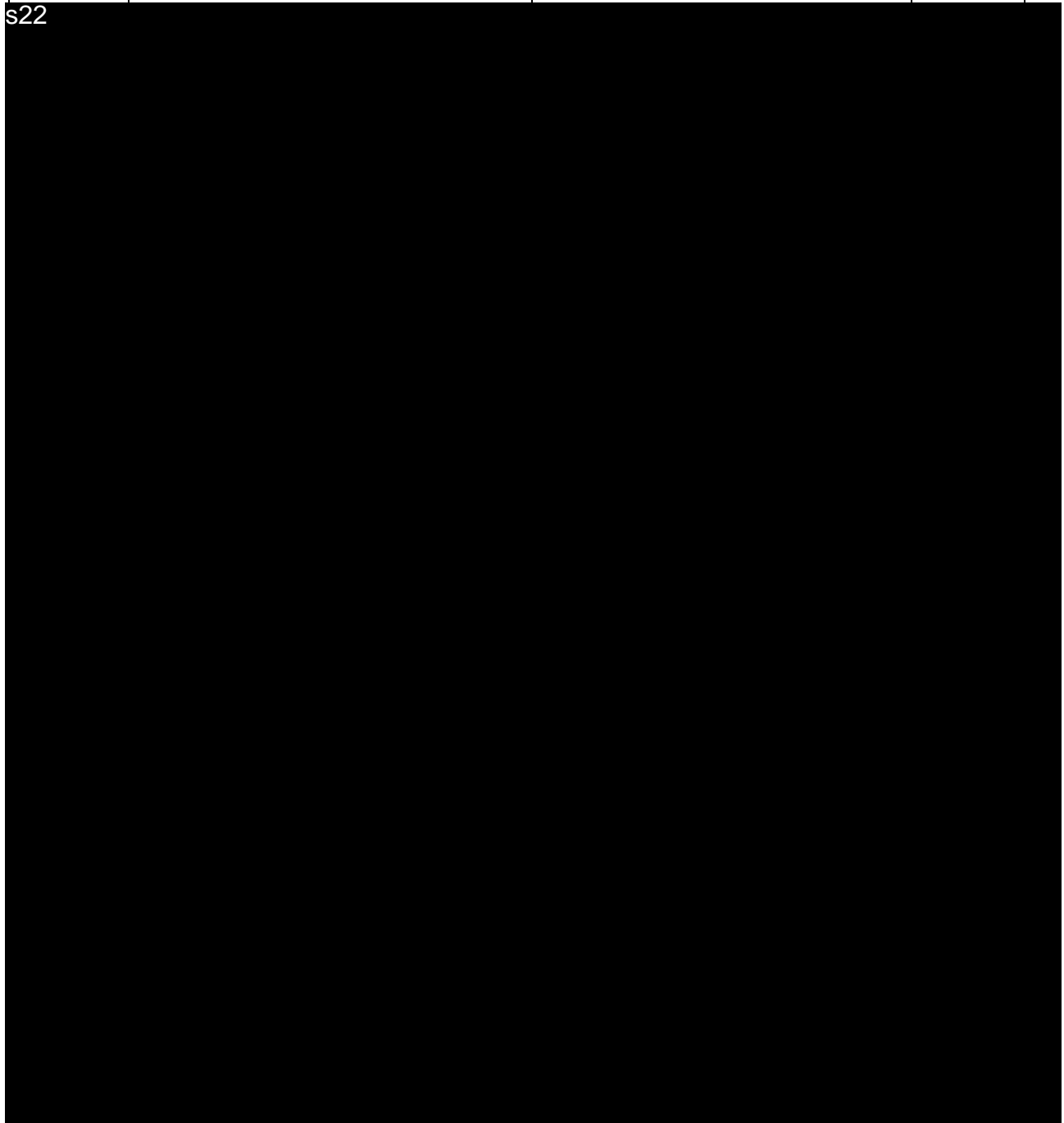
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5.	<b>PANCREAS</b>		
5.1	<b>Diabetes mellitus (DM)</b> including type I, type II, insulinopathies, maturity onset diabetes of young people and endocrinopathies with associated diabetes.	<p>Risk of sudden deterioration with minor illness or injury, requiring hospitalisation and specialist care, bacterial and fungal infections.</p> <p>Late complications—neurological, retinal and renal damage.</p> <p>Requires strict control of diet, exercise, medication, sleep and stress; may require supply of sterile injectables and testing equipment.</p>	4
		Even heat-stable insulin cannot survive for long in operational environment.	
5.2	<b>Subclinical diabetes</b> or treated with diet alone, with impaired glucose tolerance.	Requires strict control of diet—may not be possible in deployed situation. Also high risk of developing full-blown DM.	4

SERIAL	CONDITION	CONSIDERATIONS	CLASS
5.3	<b>Glycosuria</b> —positive history of glycosuria.	Must be explained and fully investigated.	3R
		<p><b>Decision</b>                      Manage as for diagnosed condition.                      In cases of doubt refer to Chief Medical Officer Defence Force Recruiting.</p>	

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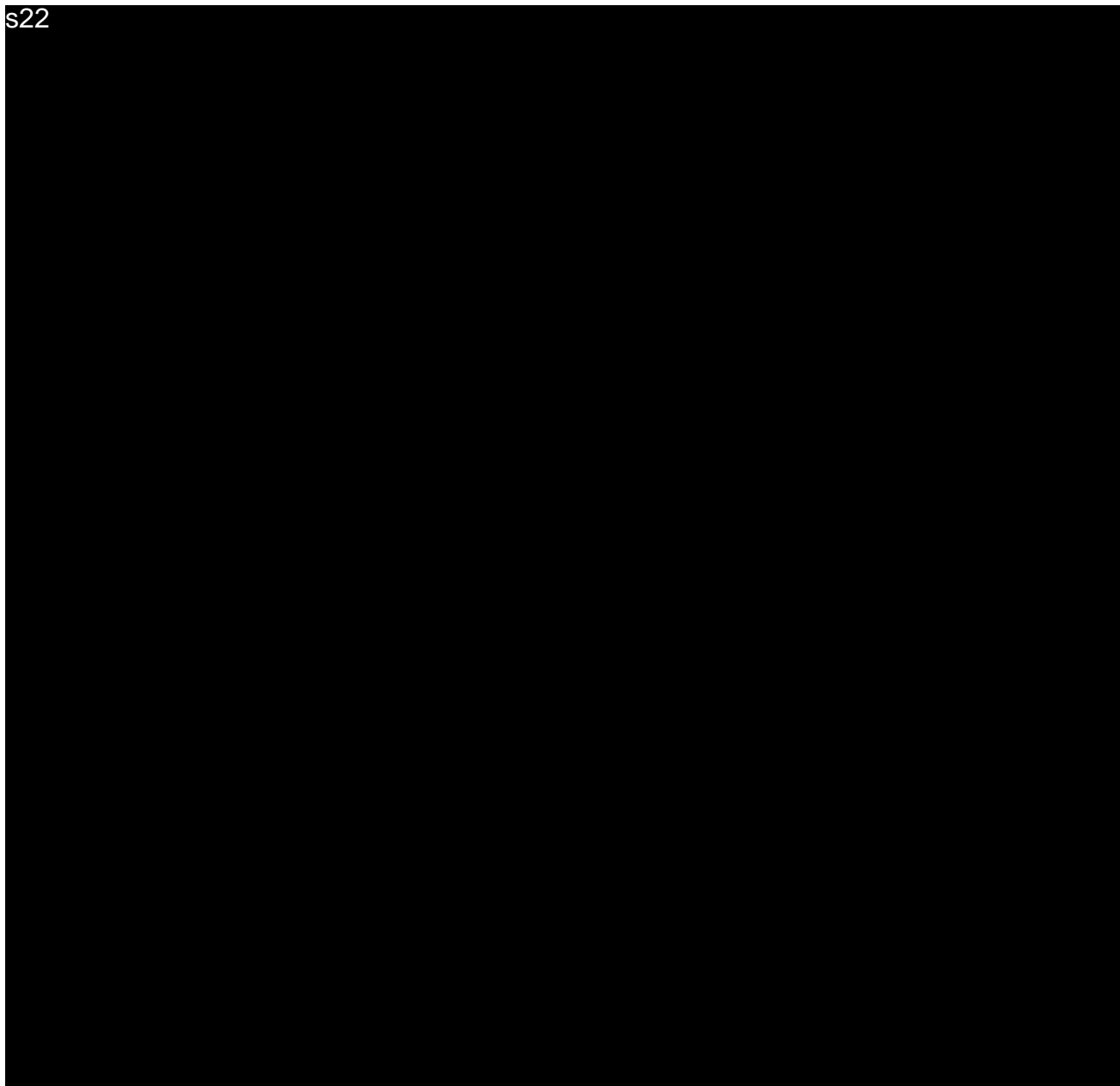
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11.	<b>URINALYSIS</b>		
11.1	<b>Glycosuria</b> —finding on urinalysis	<b>Additional information required:</b> Requires specialist assessment to exclude underlying serious condition (diabetes, or renal tubular defects).	3R
	Isolated renal glycosuria	Asymptomatic and uncomplicated.	1
	Glycosuria with diabetes		4

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## MEDICAL REQUIREMENTS FOR AVIATION-RELATED OCCUPATIONS

1. In addition to the requirements for general entry detailed in [chapter 2—'Medical records'](#) and [chapter 3—'Medical history and examination'](#), applicants for aviation-related occupations are to meet specific medical standards. Medical officers (MO) are to pay special attention to all aspects of the medical history and examination of each individual. Army applicants are to also meet the appropriate PULHEEMS profile in chapter 5, [annex C](#).

### MEDICAL STANDARDS

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7. **Respiratory function.** Applicants must have an FEV 1.0 and FVC between 80 per cent and 120 per cent of predicted values, and FEV 1.0/FVC ratio of 75 per cent or better. In the clinical examination, particular attention should be paid to any condition that might cause retention or trapping

of expanding gas in any part of the lungs. If any result is outside the normal limits, the applicant must be reviewed by a respiratory physician and the report forwarded to the Institute of Aviation Medicine (AVMED) for review.

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