#### LOCAL VESSELS ADVISORY COMMITTEE

#### Proposal for Medical Fitness Regime for Applicants or Holders of Local Certificates of Competency

#### Purpose

This paper seeks members' views and endorsement of the proposal to introduce a medical fitness regime for applicants or holders of local Certificates of Competency ("CoC").

#### Background

2. The physical condition of vessel operators is of vital importance to ensuring the safety of users of Hong Kong Waters. Even where the risks are perceived to be lower in sheltered waters, an emergency situation may place particular demands on the coxswain of the vessel to ensure safety of all persons on board. At present, when an applicant applies for a CoC, as far as physical fitness is concerned, he only needs to go through a "visual inspection" by MD's examiner and an eyesight test conducted by a medical professional. Upon issue, the CoC is valid until the holder reaches 65 years old. No further medical tests or assessments are required during this validity period. When the holder reaches 65 years old, he only needs to go through an eyesight test in order to extend his CoC. If the holder is below 71 years old, his CoC can be extended for three years on each occasion. If he is 71 years old or above, his CoC can only be extended for one year on each occasion.

3. Two studies by independent experts conducted in  $2013^1$  and  $2015^2$  also advised respectively that:

- (i) "There is no requirement for revalidation of personal health certification. We believe that this needs to be re-considered and that a requirement for regular medical examination should be implemented, probably with a similar interval to those of the UK."; and
- (ii) "The recommendations on introducing medical fitness standards are sensible and would bring Hong Kong more into line with norms in other jurisdictions."

<sup>&</sup>lt;sup>1</sup> "Benchmarking Hong Kong's Safety Requirements for Locally Licensed Passenger Carrying Vessels versus Overseas Reputable Maritime Authorities" by Andrew Moore & Associates Ltd. in 2013.

<sup>&</sup>lt;sup>2</sup> "Consultancy to Provide Expert Advice on the Work of the Marine Department with Reference to Maritime Authorities Adopting Regulatory Regimes Similar to Hong Kong's" by H4 Maritime Limited in 2015.

4. In order to develop the Regime, MD engaged the medical consultants and experts to establish a set of medical assessment criteria and standards for implementing the medical requirements for local CoC applicants/holders. Despite the commendable maritime safety level in Hong Kong, MD affirms that operators of vessels have a duty of care for passengers and the public. As such MD adopted a risk-based approach when determining the medical fitness criteria to ensure that local CoC holders are medically fit to carry out their respective duties.

## **Proposed Arrangements**

5. The Medical Assessment Form ("MAF") and Medical Assessment Guidelines as attached at **Annex A** and **Annex B** respectively, were developed by the consultants and endorsed by medical experts.

6. MD considers that the Regime should be applied to two target groups initially. The first target group involves all relevant persons who apply for the first issue of each grade of local CoC or revalidation of existing local CoC. The second target group involves relevant persons operating high risk vessels (HRV<sup>3</sup>) who should be subject to medical assessment at regular intervals.

## First Target Group

7. When applying for a new local CoC or revalidation of a local CoC, the applicant shall submit to MD a MAF with signed Medical Fitness Certificate by a medical practitioner registered with MD.

8. Once the application is accepted and the relevant local CoC is issued or revalidated, the relevant persons will not be required to make further medical assessment throughout the validity period of the concerned CoC unless the seafarers concerned would like to operate an HRV. The expiry date of medical fitness certificate will be registered in MD's system, and could be checked through on-line e-certificate verification system.

## Second Target Group

9. All relevant persons (i.e. coxswain and engine operator) operating HRV are required to obtain a Medical Fitness Certificate at five-year intervals.

10. The medical fitness requirement will be implemented through the addition of a licensing condition to the Operating Licences of HRV. This licensing condition will clearly stipulate that any relevant person operating HRVs

<sup>&</sup>lt;sup>3</sup> HRV includes vessels which are: (a) passenger carrying vessels; and (b) vessels such as oil/gas carriers which may present significant pollution risk to the environment. There are currently approximately 600 HRV licensed for operation within Hong Kong waters.

shall hold a valid medical fitness certificate, and copy of such medical fitness certificates shall be submitted to MD for registration in MD's system. MD will inform the owners of HRV of the addition of the licensing condition to the licences of their respective vessels. Violation of the licensing condition is an offence under section 36 of the Merchant Shipping (Local Vessels) (Certification and Licensing) Regulation (Cap. 548D).

11. To monitor compliance, MD will carry out inspections on board HRVs to check medical fitness certificates during routine and special operations.

## **Implementation Date**

12. Upon endorsed by Members, MD will conduct briefing sessions to notify the industry on details of the arrangement. The above proposal is expected to come into operation in Q3 2024.

## Recommendation

13. Members are invited to endorse the proposal and the implementation date stated in paragraphs 7, 9 and 12 above.

Local Vessels and Examination Division Marine Department July 2024

#### MARINE DEPARTMENT

#### THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION

### Medical Assessment Form (Holder of Local Certificate of Competency)

健康評估表 (本地合格證明書持有人)

# PART I — **Personal Details** 第I部分 — 個人資料

Surname	F	orename(s) in fu	ıll			
姓氏(英文):	名	(英文):				
Name in Chinese			Date	of birth		
姓名(中文):				日期:		
H.K. Identity Card	l No. or Passport No.				Gender	
香港身份證或護	照號碼:				性别:	

## PART II — Medical Assessment

## 第II部分 — 健康評估

This Part is to be completed by a Marine Department-registered medical practitioner (RMP). When completing this part, RMP should refer to the Marine Department's stipulated Guidelines for Conducting the Medical Assessment of Local Certificate of Competency Holders.

本部分由海事處認可醫生("認可醫生")填寫。 在填寫本表格時,認可醫生應參照海事處發出的本地合格證明書持有人健康評估指引。

#### Risk Group 1 – Sudden Loss of Consciousness, Altered Awareness, Epilepsy and Sleep Disorders 第一组国际 穷孫州生土音號、知學改織、際頭和睡眠障礙

<b>第</b> 一	組風險 — 犬發性大云息藏、知覚以愛、胸癇和睡眠障礙	
1	Does the applicant have a history of epilepsy or epileptic attack in the past $\Box$ Yes 是	□ No 否
	five years?	
	在過去五年中,申請人是否有患過腦癇症或腦癇發作病歷?	
	If 🗹 YES, please give details of the last attack and the date when treatment ceased	
	如图是,請提供最近一次發作的資料和治療終止的日期	
2	Does the applicant have blackout or an impairment of consciousness $\Box$ Yes $\not\equiv$	□ No 否
	(including sleep apnoea) within the last two years?	L

在過去兩年內,申請人是否曾有昏厥或意識障礙(包括睡眠窒息 症)?		
If ☑ YES, has applicant had following conditions? 如☑是,申請人是否有患過下列情況?		
Seizure 發作	□ Yes 是	□ No 否
Migraine 偏頭痛	□ Yes 是	
Sleep apnoea 睡眠窒息症	□ Yes 是	
Narcolepsy 昏睡症	□ Yes 是	
Malignant neoplasms 惡性腫瘤	□ Yes 是	-
Syncope 昏厥	□ Yes 是	-
Intracranial surgery/injury 顱內手術/受傷	□ Yes 是	□ No 否
Risk Group 2 – Mental Health Conditions Including Alcohol and Sub	ostance Abı	ise
第二組風險 — 精神健康疾病,包括酒精和物質濫用		
3 Does the applicant have a history of regular use of any drugs (including prescribed medicine), substances or alcohol at any point over the last three	□ Yes 是	□ No 否
years? 在過去三年的任何時候,申請人是否有定期使用任何藥物(包括處方 藥)、物質或酒精的情況?		
If ☑ YES, has the applicant had the following conditions? 如☑是,申請人是否有過下列情況?		
Alcohol abuse 酗酒	□ Yes 是	□ No 否
Drug dependence/persistent substance abuse 藥物依賴/物質濫用	□ Yes 是	
4 Does the applicant have any mental health problems over the past five	□ Yes 是	
years?		
在過去五年中,申請人是否有任何精神健康問題?		
If $\square$ YES, has the applicant had the following conditions?		
如122是,申請人是否有過下列情況?		
Acute psychosis 急性思覺失調	□ Yes 是	□ No 否
Mood/affective disorders 心境/情感障礙	□ Yes 是	□ No 否
Risk Group 3 – Cardiovascular Disease 第三組風險 — 心臟及血管疾病		
5 Does the applicant have any cardiovascular conditions in the past one year?	□Vac 旦	□ No 否
申請人在過去一年內是否有心臟及血管疾病?	山北天	山 NU 否
If $\square$ YES, has the applicant had the following conditions?		
如图是,申請人是否有過下列情況?		
Valvular heart disease 心臟瓣膜疾病	□ Yes 是	□ No 否
Congenital heart disease 先天性心臟病	□ Yes 是	□ No 否
Hypertension 高血壓	□ Yes 是	
Cardiac event 心臟意外	□ Yes 是	
Cardiac arrhythmias and conduction defects 心律不正及傳導缺陷	□ Yes 是	□ No 否
Ischaemic cerebrovascular disease 腦血管缺血性疾病	□ Yes 是	□ No 否
Implantation of cardiac pacemaker 植入心臟起搏器	□ Yes 是	□ No 否
Implantation of cardioverter defibrillator 植入心臟復律除顫器	□ Yes 是	□ No 否
	山 100 尺	
Risk Group 4 – Diabetes Mellitus 第四組風險 — 糖尿病		
<ul> <li>Does the applicant have uncontrolled or insulin treated diabetes mellitus?</li> <li>申請人是否患有不受控制或使用胰島素治療的糖尿病?</li> </ul>	□ Yes 是	□ No 否

Risk Group 5 – Medical Conditions Affecting Physical Capabilities		
第五組風險 — 影響運動系統疾病		
<ul> <li>Does the applicant have any conditions that significantly affect his/her mobility or his/her physical operation of a vessel?</li> <li>申請人是否有任何嚴重影響其肢體活動功能或船舶實際操作的情況?</li> <li>If ☑ YES, has the applicant had the following conditions?</li> <li>如☑是,申請人是否有過下列情況?</li> </ul>	□ Yes 是	□ No 否
<ul> <li>Artificial limbs 使用義肢</li> <li>Osteoarthritis 骨關節炎</li> <li>Multiple sclerosis 多發性硬化症</li> <li>Parkinson's disease 柏金遜症</li> <li>Obesity (BMI over 35) 肥胖症 (體重指標超過35)</li> <li>8 Does the applicant have Meniere's disease or other forms of chronic or recurrent disabling vertigo?</li> <li>申請人是否患有美尼爾氏症 (耳水不平衡)或其他形式的慢性或複發</li> <li>性致失能眩暈?</li> </ul>	□ Yes 是 □ Yes 是 □ Yes 是 □ Yes 是 □ Yes 是 □ Yes 是	□ No 否 □ No 否 □ No 否 □ No 否 □ No 否
Risk Group 6 – Chronic Respiratory Disease 第六組風險 — 慢性呼吸系统疾病		
<ul> <li>9 Does the applicant have any health problem affecting his/her lungs or breathing to the extent that it incapacitates him/her 申請人是否有任何健康問題影響到其肺部或呼吸,以至使其失去行動能力?</li> <li>If ☑ YES, has the applicant had the following conditions? 如☑是,申請人是否有過下列情況?</li> </ul>	□ Yes 是	□ No 否
Chronic obstructive pulmonary disease with usage of supplement oxygen 需要使用輔助氧氣的慢性阻塞性肺病	□ Yes 是	□ No 否
Asthma 哮喘	□ Yes 是	□ No 否
<b>Risk Group 7 – Medical Conditions Affecting Communication Ability</b> 第七組風險 — 影響語言溝通能力疾病		
<ul> <li>Does the applicant have unclear speech which will impair his/her ability to call for help during an emergency?</li> <li>申請人有否言語不清,會影響其在緊急情況下尋求幫助的能力?</li> </ul>	□ Yes 是	□ No 否
<ul> <li>Is the applicant able to hear a whispered voice in a quiet room? Hearing aids are acceptable provided that their use does not impede watch-keeping duties to be adequately performed.</li> <li>申請人能在環境肅靜的房間裡聽到耳語嗎?如不妨礙履行正常值班職 責是允許使用助聽器。</li> </ul>	□ Yes 是	□ No 否
Risk Group 8 – Eye Disease		
第八組風險 — 眼科疾病		
<ul> <li>Has the applicant been diagnosed with any chronic or progressive or recurrent eye disorders?</li> <li>申請人是否被診斷患有任何慢性或漸進性或複發性眼部疾病?</li> <li>If ☑ YES, has the applicant had the following conditions?</li> <li>如☑是,申請人是否有過下列情況?</li> </ul>	□ Yes 是	□ No 否
Glaucoma 青光眼 Maculopathy 黃斑病	□ Yes 是 □ Yes 是	□ No 否 □ No 否

Diabetic retinopathy 糖尿病視網膜病變	□ Yes 是	□ No 否
Risk Group 9 – Medical Conditions Affecting Memory and Cogniti	ve Function	
第九組風險 — 影響記憶及認知能力疾病		
13 Does the applicant have dementia or cognitive impairment?	□ Yes 是	□ No 否
申請人是否患有癡呆症或認知障礙?		
If ☑ YES, has the applicant had the following conditions? 如☑是,申請人是否有過下列情況?		
Alzheimer's Disease 阿滋海默症	□ Yes 是	□ No 否
Vascular Dementia 血管性認知障礙症	□ Yes 是	□ No 否
Mild Cognitive Impairment 輕度認知障礙	□ Yes 是	□ No 否
<b>Other Medical Conditions</b> 其他醫療狀況		
Has the applicant used any medication that may impair his/her ability in	□ Yes 是	□ No 否
performing routine and emergency duties?		
申請人有否因所服用的藥物對其執行一般及應急職責的能力有負面影	•	
響?		
15 Does the applicant have any conditions that can impair his/her fitness to operate a vessel?	□ Yes 是	□ No 否
申請人有否因其健康狀況對操作船隻的適合性有負面影響?		
16 For a revalidation application: has there been any significant changes to the applicant's eyesight and hearing including visual or hearing aids that woul affect his/her ability to perform duties?	· •	□ No 否
如屬延展證明書期限申請:申請人的視力和聽力(包括使用助視器或		
助聽器)曾有否任何重大改變會影響其履行職責的能力?		

If "Yes" was answered for any of the above, or if there are any medical conditions not included in the questions, or there is any additional information which could help for assessment, the medical practitioner should provide details below: 如上述任何一項回答"是",或有發現不在上述問題內所包括的健康狀況,或有任何附加資料有助於

評估,醫生應提供詳細資訊於此:

## PART III — **Basic Health Examination** 第III部分 — **基本體格檢查**

Height (cm): 身高(厘米)	 Weight (kg): 體重(公斤)	 Body Mass Index (BMI) 體重指標	
Urinary Glucose: 尿液化驗(尿糖)	Urinary Protein: 尿液化驗(尿蛋白)	$\left[\frac{Weight(kg)}{\{Height(m)\}^2}\right]$	
Pulse rate (per minute): 心率(每分鐘)	Rhythm: 心律		
Blood pressure (mm Hg): 血壓(毫米汞)	Systolic: 收縮壓	 Diastolic: 舒張壓	]

Other relevant physical examination findings (if applicable), please give details below: 其他相關體格檢查結果(如適用),請詳細說明於此:

# PART IV — Examinee's Declaration

第IV部分 — 體檢者聲明

I hereby confirm that the information given to the medical practitioner by me is truthful and that I have not concealed any information about my state of health.

我特此確認,我向醫生提供的資料是真實的,我沒有隱瞞任何有 關我的健康狀況資料。 Signature of Examinee

體檢者簽署

Date 日期:

# Medical Fitness Certificate 健康證明書

On the basis of my assessment recorded above, I certify that the applicant is medically: 根據我以上的評估記錄,我作出證明,申請人的健康評估為: (Please tick one of the following blocks in sections A, B, or C) (請在以下 A、B 或 C 部分中勾選一方框) A. Fit to operate a local vessel: With restrictions: Without restrictions  $\Box$ 適合操作本地船隻 沒有限制 設有限制 B. Unfit to operate a local vessel: 不適合操作本地船隻 C. Based on the available health information, the applicant's fitness is considered doubtful, and the applicant is required to undergo a further medical examination on [ item by a medical specialist or provide evidence of treatment for the condition concerned for his/her health status to be considered acceptable. 根據現有的健康資訊,申請人的健康狀況被認為有疑問,需要接受由專科醫生對 ]項目進行進一步檢查或提供治療證明以確認其健康狀況被接受。

Remarks and description of restrictions if applicable: 備註及具體說明何種限制(如適用)

Date	Signature of Medical Practitioner	Stamp of Medical Practitioner
日期	醫生簽署	醫生蓋印

\* RMP may issue a certificate of medical fitness for a lesser period if appropriate. 如需要,認可醫生可簽發較短期限的體格檢驗證書。

Certificate issue duration	證書有效期限	Age	年齡
Up to 5 years	不多於五年	18 to 60 years old	18 歲或以上但未滿61歲
Up to 3 years	不多於三年	61 to 68 years old	61 歲或以上但未滿69歲
Up to 1 years	不多於一年	69 years old or more	年滿69歲或以上

#### Guidance Notes 填表須知

At the time of the initial issue/revalidation of the Local Certificate of Competency or serving on the specified type of local vessel requires the applicant to hold a valid Medical Fitness Certificate (Holder of Local Certificate of Competency).

本地合格證明書在首次簽發/延展期限,或在指明類型本地船隻上工作時,申請人需要持有有效的 體格檢驗證書(本地合格證明書持有人)。

The primary objectives of a medical assessment of fitness for duty at sea are:

- to ensure that individuals are fit to perform the essential tasks of their job at sea effectively; and
- to anticipate and where possible, prevent the avoidable occurrence of ill-health offshore which could place individuals, their colleagues, passengers and emergency personnel at risk.

履行海上職責人士而進行體格檢驗的主要目的為:

- 確保個人適合有效地執行海上工作的基本任務,和
- 在預計有可能發生的情況下,避免離岸工作中因身體欠佳狀況出現對個人、伙伴、乘客及應急人員構成危害。

For examinee 受評核人須知

- 1 The information on the medical assessment form will be used by Marine Department to determine if the applicant is medically fit to operate a local vessel. 海事處對健康評估表上的資料用於評估申請人的健康狀況是否適合操作本地船隻。
- 2 This form is to be submitted to the Marine Department for the application or revalidation of Local Certificate of Competency.

此表格提交給海事處作申請本地合格證明書或本地合格證明書續期之用。

3 Having a medical condition will not necessarily debar the applicant from working onboard a local vessel. This will depend on the nature of the medical condition, results of medical assessment, together with the circumstances and mode of vessel operation.

如有醫療狀況申請人並不一定被禁止在本地船上工作,而會因應醫療狀況的性質、醫療評估的 結果,以及有關情況和船隻操作模式作考慮。

4 Any person who makes, assists in making or procures to be made any false representation for the purpose of procuring, either for himself or for any other person, a local certificate of competency commits an offence.

任何人如為了為自己或他人取得本地合格證明書,作出或協助作出任何虛假陳述,或促致作出 任何虛假陳述,即屬犯罪。

#### **Personal Data Collection Statement**

#### 收集個人資料聲明

#### 1. Purposes of Collection 收集目的

The personal data provided by means of this form will be used by Marine Department for the following purposes:

海事處會使用透過本表格所獲得的個人資料作下列用途:

- (a) activities relating to the processing of your application for a Local Certificate of Competency;
   辦理有關審批你所提出申請本地合格證明書的事務;
- (b) facilitating communication between Marine Department and yourself;
   方便海事處與你聯絡;
- (c) assisting in the enforcement of any other Ordinances and Regulations by other Government Bureaux and Departments;
   藉此協助其他政府決策局和部門執行其他法例和規例;
- (d) limited personal data of successful applicants may be used via the Marine Department's Internet web site for verification of the issued certificate by any third party; and 成功申請人的有限個人資料會用於海事處的互聯網網頁以供第三者查證本處所發出的證書;以及
- (e) for statistics and research purposes on the condition that the resulting statistics or results will not be made available in a form which will identify the data subjects.
   供作統計及研究用途,但所得的統計數字或研究成果,不會以能辨識各有關的資料當事 人或其中任何人的身份的形式提供。

#### 2. Classes of Transferees 獲轉交資料的部門/人士

The personal data you provided by means of this form may be disclosed to other Government Bureaux and Departments for the purposes mentioned in paragraph 1 above.

你透過本表格所提供的個人資料會向其他政府部門、決策局及有關機構,以作上述第1段所列的用途。

#### 3. Access to Personal Data 索閱個人資料

You have a right of access and correction with respect to personal data as provided for in Sections 18 and 22 and Principle 6 of Schedule 1 of the Personal Data (Privacy) Ordinance. Your right of access includes the right to obtain a copy of your personal data provided by this form.

根據《個人資料(私隱)條例》第18及22條及附表1第6條,你有權索閱及修正你的個人資料。你的索閱權包括獲取本申請表所提供的個人資料副本一份。

#### 4. Enquires 查詢

Enquiries concerning the personal data collected by means of this form, including the making of access and correction, should be addressed to:

有關透過本申請表收集的個人資料的查詢,包括索閱及修正資料,應寄往:

Officer-in-charge	香港
River Trade and Local Examination Section	中環統一碼頭道38號
Marine Department	海港政府大樓3樓303室
Room 303, 3/F, Harbour Building 38 Pier Road, Central	內河航行及本地考試組主管
Hong Kong	月月九月及本地方武盘工官

## <u>Guidelines for Conducting Medical Assessment on</u> <u>Holders of Local Certificate of Competency</u>

## I. Introduction

The following guidelines are provided for registered medical practitioners ("RMPs") approved to medically assess seafarers by conducting medical assessment on holders of Local Certificate of Competency ("LCoC"). In conducting medical assessment on LCoC holders, RMPs should follow these guidelines and make reference to the relevant sections of the "Guidelines on the medical examinations of seafarers" (STCW.7/Circ.19, hereinafter referred to as "the Guidelines") published by the International Maritime Organization ("IMO") and the International Labour Organization ("ILO").

## II. Background

In accordance with the Merchant Shipping (Local Vessels) Ordinance (Cap. 548), persons employed as coxswains, engine operators and pleasure vessel operators are required to hold a relevant LCoC issued under section 16 of this Ordinance.

To safeguard maritime safety, LCoC holders are required to meet basic medical standards at the time of the initial issue and revalidation of a LCoC. To this effect, LCoC applicants will be required to undergo a medical assessment. Upon medical assessment, RMPs will issue medical fitness certificates to the applicants. This may certify him/her as fit without restriction, fit with restrictions or unfit. RMPs should adopt the following guidelines when conducting medical assessment.

## III. Working Conditions On Board Local Vessels in Hong Kong Waters

Local vessels refer to vessels licensed in Hong Kong under the Merchant Shipping (Local Vessels) Ordinance (Cap. 548), among which the most common types are as follows:

Pleasure vessels (including jet-skis): used exclusively for pleasure

purposes, such as traditional junks and open cruisers.

Cargo vessels and oil carriers: used for the transportation of goods or oil. Typically travel at slow speeds.

Ferries and launches: used for the transportation of passengers.

The operating environment applicable to LCoC holders significantly differs from that for foreign going vessels and therefore RMPs should fully consider the following factors when assessing the medical fitness of a LCoC holder. Factors to be taken into consideration include:

- the generally calm waters of Hong Kong;
- the availability of emergency services;
- the extensive coverage of communication networks, such as mobile phone networks and maritime distress response centres;
- the limited size of Hong Kong waters where local vessels are engaged in very short voyages;
- the LCoC holders do not live on board their vessels; and
- the availability of onshore medical care.

## **IV.** General Considerations

The fundamental purpose of medical assessment is to determine whether an individual LCoC holder is physically and medically fit to perform the essential tasks of operating a local vessel safely. It is recognised that not all potentially dangerous medical conditions are covered in this document and therefore medical practitioners should assess the range of medical, physical and psychological circumstances that could affect the ability of a LCoC holder to control a vessel to the extent of endangering public safety. The interests of a LCoC holder must also be balanced against the need for public safety. Equally, no one should be deprived of their livelihood or access to the sea where the risk to the public is essentially negligible. As such, when conducting medical assessment, RMPs should apply the following criteria to determine whether a condition would render a person unfit to operate a local vessel:

(a) Medical conditions that hamper the applicant's ability to carry out duties on board the vessel (e.g. loss of sight and loss of *hearing*);

- (b) Medical conditions that can lead to the complete incapacitation of seafarers in 30 minutes; and
- (c) Mental disorders that can cause changes to perception, cognition, affect/mood, risk taking and thought processes.

## V. Medical Conditions and Medical Assessment

Medical assessment should be conducted in addition to basic health exam (Part III of MAF) by completing questions 1 to 16. The objective of medical assessment is to screen out those who could not operate a local vessel safely, but not a full medical examination for diagnostic purposes.

Conditions which could potentially impair the ability of a LCoC holder to perform the essential tasks are categorised into the following nine classes. The nine classes of conditions form the basis of the medical assessment form. RMPs should follow the rationale and guidelines listed below when assessing the medical fitness of a LCoC applicant.

1. Sudden Loss of Consciousness, Altered Awareness, Epilepsy and Sleep Disorders (Corresponding Questions 1 and 2)

Depending on the case, diseases falling under this category could alter the state of consciousness of a local vessel operator, which could then prevent him/her from performing his/her duties. When the onset is sudden or the local vessel operator is not aware of the change of state, he/she may put himself/herself or the passengers on board and the vessel at risk. In some cases, loss or alteration of consciousness is recurrent and may increase the probability of harm. Examples include epilepsy, syncope, migraine, seizure, sleep apnoea, malignant neoplasms, intracranial surgery and narcolepsy.

**Guidelines** 

<b>ICD-10<sup>1</sup></b>	Condition	Criteria for operating local vessels in
(diagnostic		Hong Kong Waters
codes)		

<sup>&</sup>lt;sup>1</sup> The World Health Organization's International Classification of Diseases, 10<sup>th</sup> revision ("ICD-10")

G40-41	Epilepsy (multiple seizures)	Without provoking factors:
		Without seizures and not on any anti-
		epilepsy medication in the last five years,
		provided there is no continuing liability to
		seizures.
		Provoked by alcohol, medication, head
		injury:
		Without seizures and not on any anti-
		epilepsy medication in the last five years,
		provided there is no continuing liability to
		seizures from exposure to provoking
		substances.
G40-41	Single seizure	One year after seizure and one year after
		end of treatment.
G43	Migraine (frequent attacks causing	No anticipated incapacitating adverse
	incapacity)	effects while at sea.
G47	Sleep apnoea	Treatment initiated and demonstrably
		working effectively to prevent daytime
		sleepiness for three months. Confirmed
		compliance with continuous positive
		airway pressure (CPAP) use during this
		period needed.
		Six monthly assessments of compliance
		with CPAP use based on CPAP machine
		recording.
G47	Narcolepsy	No watchkeeping duties, if specialist
		confirms full control of treatment for at
		least two years.
		Annual review.
C00-48	Malignant neoplasms	Cancer diagnosed more than 5 years ago,
		or specialist reviews no longer required and
		no current impairment or low continuing
		likelihood of impairment from recurrence.
		To be confirmed by specialist report with
		evidence for opinion stated.

R55	Syncope	Simple faint:
		If no incapacitating recurrences ~ fit.
		Unexplained syncope with low risk of
		recurrence:
		Three months after event if no recurrences
		~ fit.
		Presumed syncope with high risk of
		recurrence:
		If no cause found after one year with no
		recurrences ~ fit. If cause found and treated
		successfully after four months with no
		recurrences or treatment problems ~ fit.
		If recurrent incidents persist:
		Despite full investigation and appropriate
		treatment ~ temporary unfit.
Т90	Intracranial surgery/injury,	After at least one year, if seizure likelihood
	including treatment of vascular	is low and no impairment from underlying
	anomalies or serious head injury	condition or injury.
	with brain damage	Conditional on continued compliance with
		any treatment and on periodic review, as
		recommended by specialist.

2. Mental Health Conditions Including Alcohol and Substance Abuse (Corresponding Questions 3 and 4)

Conditions may include bipolar affective disorder, alcohol and drug misuse, personality disorders with aggressive or impulsive components, etc. These conditions can have adverse effects on personal performance through changes to perception, cognition, affect/mood, risk taking and thought processes. In some cases, there is also impairment of movement and co-ordination. Such impairment sometimes causes constant effects on an individual's capabilities and can pose direct dangers to others on board and vessel operations.

Recurrences may be part of the natural history of the disease; or can be attributed either to work-related provoking factors such as overload, tiredness or a managerial climate perceived as harsh or inconsistent or to non-occupational causes such as relationship or financial problems. In addition, the impairing effects of some medications used to treat mental health problems may hamper a seafarer's cognitive ability, and this is often exacerbated if there is misuse of alcohol or drugs.

ICD-10	Condition	Criteria for operating local vessels in Hong
(diagnostic		Kong Waters
codes)		
F10	Alcohol abuse (dependency)	After three years from end of last episode
		without relapse and without co-morbidity.
F11-19	Drug dependence/persistent	After three years from end of last episode
	substance abuse, including both	without relapse and without co-morbidity.
	illicit drug use and dependence on	
	prescribed medications	
F20-31	Psychosis (acute) - whether organic,	Following single episode with provoking
	schizophrenic or other category	factors:
	listed in the ICD. Bipolar (manic	Case-by-case assessment at least one year
	depressive disorders)	after the episode, provided that provoking
		factors can and will always be avoided.
		Following single episode without provoking
		factors:
		Case-by-case assessment to exclude
		likelihood of recurrence at least five years
		since end of episode if no further episodes; no
		residual symptoms; and no medication needed
		during the last two years.
		If recurrent episodes:
		A psychiatrist specialist advice should be
		obtained.

# Guidelines

F32-38	Mood/affective disorders	Severe:
	Severe anxiety state, depression, or	Case-by-case assessment to exclude
	any other mental disorder likely to	likelihood of recurrence after at least two
	impair performance	years with no further episodes and with no
		medication or on medication with no
		impairing effects.
	Minor or reactive symptoms of	Minor:
	anxiety/depression	Case-by-case assessment after one year from
		end of episode if symptom free and off
		medication or on medication with no
		impairing effects.

3. Cardiovascular Disease (Corresponding Question 5)

Cardiovascular diseases and conditions may be aggravated by stress of work at sea. They may also lead to loss of consciousness or death. A local vessel operator who underwent coronary artery bypass grafting or percutaneous coronary intervention has a higher likelihood of suffering from subsequent cardiovascular events. Opinion from a specialist cardiologist may be required for individuals with a history of myocardial infarction or coronary artery disease requiring angioplasty, stenting or bypass grafting.

## **Guidelines**

ICD-10	Condition	Criteria for operating local vessels in
(diagnostic		Hong Kong Waters
codes)		
I05-08	Congenital and valve disease of	Case-by-case assessment based on advice
I34-39	heart (including surgery for these	from a specialist cardiologist.
	conditions). Heart murmurs not	
	previously investigated	

I10-15	Hypertension	Blood pressure higher than 160/100 mm Hg
		is classified as severe ~ temporary unfit.
		Normally if >150 systolic or >95 diastolic
		mm Hg until investigated and initially
		treated with anti-hypertensive drug therapy
		and effective control of hypertension is
		achieved (not greater than 150/95 mm Hg)
		without appreciable side effects over a four-
		week period, subject to annual review.
		Where blood pressure control under regular
		surveillance, compliant with recommended
		treatment, has been achieved and is stable
		for 2 years, 2-yearly reviews are
		appropriate.
I20-25	Cardiac event, i.e. myocardial	For three months after initial investigation
	infarction, ECG evidence of past	and treatment (longer if symptoms not
	myocardial infarction or newly	resolved) ~ temporary unfit.
	recognised left bundle-branch	Opinion from a cardiologist on the level of
	block, angina, cardiac arrest,	excess risk of recurrence should be sought.
	coronary artery bypass grafting,	If likelihood of recurrence is very low (i.e.
	coronary angioplasty	recurrence rate is less than 2 percent per
		year) and fully compliant with risk
		reduction recommendations and no relevant
		co-morbidity, issue a six-month certificate
		initially and then an annual certificate.
		If likelihood of recurrence is low (i.e.
		recurrence rate ranges from 2 to 5 percent
		per year), restricted to no lone working or
		watchkeeping duties, issue a six-month
		certificate initially and then an annual
		certificate.
		If likelihood of recurrence is moderate (i.e.
		recurrence rate ranges from 5 to 20 percent
		per year), case-by-case assessment of ability
		to determine restriction on duties. With
		annual review if considered to be capable.

I44-49	Cardiac arrhythmias and	Investigated, treated and adequacy of
	conduction defects (including	treatment confirmed.
	those with pacemakers and	If no impairing symptoms present and very
	implanted cardioverter	low (i.e. recurrence rate is less than 2
	-	
	defibrillators (ICD))	percent per year) excess likelihood of
		impairment from recurrence, based on
		specialist cardiologist report.
		Unfit if applicant has had a defibrillator
		device implanted.
		If applicant has had a pacemaker implanted
		and the medical practitioner is satisfied that
		the pacemaker function has been
		appropriately tested subject to six-monthly
		testing at a pacemaker clinic and
		cardiological review.
G46	Ischaemic cerebrovascular	Treated and any residual impairment
	disease (stroke or transient	stabilised and for three months after event.
	ischaemic attack)	Case-by-case assessment of fitness for
		duties. This should include risk of future
		cardiac events, provided that general
		standards of physical fitness can be met.
		Annual assessment is required.

## 4. Diabetes Mellitus (Corresponding Question 6)

Diabetes presents in two main forms and both forms increase the risk of blood vessel diseases. Large blood vessel disease increases the risk of arterial diseases, including heart attacks and strokes. Performance at tasks may be reduced by impaired cognitive function from hypoglycemia.

Diabetes presents a high risk depending on the type, management and stability. The main hazard in people with insulin treated diabetes is the unexpected occurrence of hypoglycemia, causing loss of consciousness or seizure. It can occur any time of the day or night. A severe hypoglycemic event is particularly relevant to the operation of vessel because it affects brain function and may cause impairment of perception, motor skills or consciousness. It may also cause abnormal behaviour. The applicant should have a comprehensive understanding of, and insight into, the conditions, risks and warning signs of hypoglycaemia; how to prevent and manage this issue; and should practise a consistently applied

self-testing regime to minimise its likelihood.

Guidel	ines

ICD-10	Condition	Criteria for operating local vessels in Hong
(diagnostic		Kong Waters
codes)		
E10	Diabetes	The insulin regime has been stable with good
		control of blood glucose, full compliance with
		treatment recommendations and good
		hypoglycaemia awareness.
		Restricted to non-lone working or non-lone
		watchkeeping duties. Compliant with advice
		from treating doctor on vascular risk control,
		annual specialist assessment.

5. Medical Conditions Affecting Physical Capabilities (Corresponding Questions 7 and 8)

Conditions such as varying degrees of physical disability, severe osteoarthritis, Parkinson's disease and conditions affecting the mobility of an applicant fall under this class of diseases. These conditions could lead to the applicant's inability to undertake arduous emergency tasks such as fire-fighting, evacuation from the vessel and recovering people from the water in small vessels such as yachts. A local vessel operator with physical capability issues may also have difficulties in entering and leaving restricted spaces during normal duties and emergencies. These limitations create risk both for the seafarer himself/herself and for other crew members.

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ICD-10	Condition	Criteria for operating local vessels in Hong
(diagnostic		Kong Waters
codes)		

Y83.4	Limb prosthesis	If routine and emergency duties can be
Z97.1		performed but there are limitations on specific
		non-essential activities.
		Where there is any doubt about mobility, the
		medical practitioner should recommend
		obtaining an operating ability assessment
		conducted by Marine Department (MD).
M10-23	Osteoarthritis	Case-by-case assessment, able to fully meet
		routine and emergency duty requirements
		with very low likelihood of worsening such
		that duties could not be undertaken.
		Where there is any doubt about mobility, the
		medical practitioner should recommend
		obtaining an operating ability assessment
		conducted by MD.
G00-99	Other organic nervous disease,	Case-by-case assessment based on job and
	e.g. multiple sclerosis,	emergency requirements, informed by
	Parkinson's disease	specialist advice.
		Where there is any doubt about mobility, the
		medical practitioner should recommend
		obtaining an operating ability assessment
		conducted by MD.
E65-68	Obesity	Restricted duties if unable to perform certain
		tasks but able to meet routine and emergency
		capabilities for assigned safety-critical duties.
		Where there is any doubt about mobility, the
		medical practitioner should recommend
		obtaining an operating ability assessment
		conducted by MD.
H81	Ménière's disease	Low (recurrence rate ranges from 2 to 5
		percent per year) likelihood of impairing
		effects while at sea.

Physical capability testing is not required as a routine, unless there are indications that there is an increased probability of limitations. Where there is any doubt about mobility or other musculoskeletal issues, it may be more appropriate to conduct an operating ability assessment by a MD examiner via referral.

## 6. Chronic Respiratory Disease (Corresponding Question 9)

Severe respiratory diseases may cause asphyxiation, leading to reduced mobility, incapacitation or death. These diseases include chronic obstructive pulmonary disease (COPD), pulmonary fibrosis, asthma, etc. Chronic conditions such as asthma have a long term risk of an acute episode at sea where rapid medication is required for treatment. Evidence of stability and good control of asthma via medication is essential.

ICD-10	Condition	Criteria for operating local vessels in Hong
(diagnostic		Kong Waters
codes)		
J40-44	Chronic obstructive pulmonary	Case-by-case assessment, consider fitness for
	disease (COPD)	emergencies and ability to meet general standards
	(e.g. Chronic bronchitis,	of fitness. An advice from treating medical
	emphysema)	practitioner may be sought.
		Severe impairment or a requirement for
		continuous supplemental oxygen due to
		respiratory disease generally indicates significant
		impairment of the functions needed for routine
		and emergency duties.
		Where there is any doubt about capability, the
		medical practitioner should recommend obtaining
		an operating ability assessment conducted by
		MD.
J45-46	Asthma	History of moderate adult asthma with good
		control using regular preventer or reliever inhalers
		and no hospital admission OR oral steroid use in
		the last 2 years, or history of mild or exercise-
		induced asthma that needs treatment.

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## 7. Medical Conditions Affecting Communication Ability (Corresponding Questions 10 and 11)

The condition is not to require perfect hearing but the functional capability to meet the safety-critical job requirements. Adequate hearing is essential for interpersonal and radio/telephone communications at sea. The communication often takes place with background noise or interference and has to transcend language barriers. Failure to hear and respond to a message correctly is frequently safety-critical. Hearing should be tested using either pure-tone audiometry or the speech recognition test (e.g. <u>hearWHOApp</u>). If hearing loss is greater than 30dB (unaided) in the better ear and 40dB (unaided) in the less good ear by taking the averages of the frequencies 500, 1000, 2000, 3000 Hz, it indicates that there are likely to be problems with hearing normal speech at a distance of 2 to 3 metres. A view from an audiologist or ENT specialist on impairment with and without the aid should be obtained.

Impairment to essential speech communication might affect the safe and effective performance of normal and emergency duties. Please specify if assistance with communication is needed to ensure reliable performance of duties safely and effectively.

## 8. Eye Disease (Corresponding Question 12)

Certain diseases may either result in types of vision defect that will not be apparent on the routine tests used or will, because of their progressive or recurrent nature, mean that frequent surveillance is needed. Eye disorders is mainly a condition of older persons. Reduced field of vision, reduced acuity and patchy visual field losses in the central area of vision. It will not normally be possible to meet the requirements for visual acuity.

ICD-10 (diagnostic	Condition	Criteria for operating local vessels in Hong Kong Waters
codes)		
H00-59	Glaucoma	Regular eye medication is usually prescribed.
		Check that there are no side effects or visual
		impairment from its use. Issue a time limited
		certificate if progression likely within next two
		years.
H00-59	Maculopathy	As central vision is lost, it will not normally be
		possible to meet the requirements for visual
		acuity.

#### **Guidelines**

H00-59	Diabetic retinopathy	It is characterised by patchy visual loss
		(scotomata) at random across the visual fields.
		Acuity standards will often not be met, but if a
		diagnosis of diabetic retinopathy has been made
		and they are met, a specialist report on likely
		progression should be obtained.

## 9. Medical Conditions Affecting Memory and Cognitive Function (Corresponding Question 13)

Dementia is a syndrome, usually of a chronic or progressive nature, affecting brain function due to neurological pathology. Patient's memory, comprehension, language, learning capacity, calculation and judgement would be affected. Some also present with emotional, behavioural or sensory problems. There is currently no treatment available to cure dementia. Intact memory and cognitive function are reasonable requirements for operating a vessel safely and efficiently. An applicant suffering from dementia is considered as unfit.

## 10. Other Medical Conditions (Corresponding Questions 14 and 15)

Some medications have the capability of altering vision, perception, judgement, attention span and motor function. Seafarers should be asked about effects arising from their use of these medications on their ability to carry out duties safely.

It is important for older persons to have adequate strength, flexibility, and endurance to accomplish tasks. A person's eyesight, physical strength, reactions and even cognitive abilities are likely to diminish with age. Although illness and medical impairment become increasingly problematic starting at age 55, many older persons still meet the medical fitness and physical standards required to work safely at sea for extended periods of time. When assessing older persons, the primary consideration is that they should be in reasonable health and safe to work at sea.

RMPs should bear in mind that it is not possible to cover every clinical situation in these guidelines and when conducting assessment, they must exercise judgement in relation to the key objective, i.e. to reduce risks to other crew members and ensure the safe operation of vessels.