

Screening for Multi-Drug Resistant Organisms (MDROs)

What is MDRO?

MDRO stands for Multi-Drug Resistant Organism and represents types of bacteria that have become resistant to most antibiotics.

How can MDROs be developed?

MDROs can be developed naturally over time, through genetic, or more usually through misuse or overuse of antibiotics. They can also develop in both humans and animals, through direct contact.

What are the common MDROs?

There are many types of MDROs, Methicillin-resistant Staphylococcus aureus (MRSA) and Vancomycin Resistant Enterococci (VRE) are both commonly found in hospital settings, however there is also a community strain of MRSA.

Methicillin-resistant Staphylococcus aureus (MRSA) is a type of Staphylococcus aureus bacterium (S. aureus) which can often be found in the nasal cavity and on the skin of some healthy people. The Methicillin-resistant strain has become resistant to most antibiotics and is often referred to as a superbug.

Enterococci is a strain of bacteria that is commonly found in intestines; however, the Vancomycin Resistant strain has become resistant to the antibiotic Vancomycin.

Why screen for MDROs in hospital?

Antibiotic resistance is one of the major threats to global health. New resistant organisms are emerging and spreading globally, rendering antibiotics less effective to fight a growing number of infectious diseases. In view of this global threat, many health authorities have committed to actions to improve antibiotic use, establishing antibiotic resistance tracking systems. Considering this, Matilda International Hospital has introduced added screening as a precaution to prevent having these MDROs in our hospital environment.

Who needs to do this screening?

The hospital requires patients to do VRE screening if they fit into one of these criteria:

- History of admission or medical management in another hospital or healthcare institution in or outside HK within the last 3 months
- Having been a resident of a long-term care facility (e.g. elderly homes or home for the disabled) within last 3 months
- History of confirmed VRE infection

In addition to the above, if the patient has been diagnosed with MRSA before, or has been admitted to an Intensive Care Unit in another hospital during the past three months, they will also need to undertake an additional MRSA screening test.

What are the charges for screening?

The charges depend on the number of tests and outcome of these. All charges include the stay in an isolation room, ward isolation procedures as well as the laboratory tests. If the test result is negative, the patient no longer requires isolation and will be assigned to the room type of choice.

Screening Type	Charge HKD	
VRE	\$3,200	Testing with up to six hours in an isolation room
VRE and MRSA (if required)	\$4,100	Testing with up to six hours in an isolation room

If the test result is positive to the infection, patients are required to remain in isolation for the rest of the day.

Screening Type	Charge HKD	
VRE	\$5,300	Testing and full day in an isolation room
VRE and MRSA (if required)	\$6,500	Testing and full day in an isolation room

For stays of more than one day that require isolation from the second day onwards, the isolation room charge is \$4,200 per day.

What is involved with isolation?

Isolation minimalizes contact with other patients, visitors, and staff. A single occupancy room is allocated for patients needing isolation precautions and further infection control measures will take place. These include stringent compliance to hand hygiene, use of Personal Protective Equipment (PPE), and the supply of disposable utensils and medical equipment.

Visitors should be limited and they are advised to wear surgical masks within the room, as well as washing their hands before and after entering the room.

Is there a treatment for a positive test?

If testing positive for the initial screening test, the sample will be further examined by a culture test. Patients need to remain in isolation for the rest of their stay. The admitting doctor will be notified of the result and will discuss treatment options with the patient.

Can patients choose not screen for MDRO's?

The hospital has added this screening as a precaution to prevent MDRO infections within the hospital and therefore this test is mandatory for patients who fit the screening criteria as set out above. For patients who do not wish to do the testing, they need to let us know before admission so that the procedure can be rearranged with the doctor.

Can the patients undergo MDRO screening in their doctor's clinic?

We do accept a pre-admission screening result from the attending doctor. For this, please remember to bring along the doctor's report, which must be dated within six months of the date of admission to be valid.

Does insurance cover the test?

As far as we are aware some insurance companies do cover these tests, but this will depend on the patient's policy. We suggest you to contact the insurer regarding the coverage before admission.

Please contact the Patient Service Centre at 2849 0355 or email to psc@matilda.org for more information on the MDRO screening.

多重耐藥性細菌測試

甚麼是多重耐藥性細菌？

多重耐藥性細菌是指對大部分抗生素呈耐藥性的細菌。

多重耐藥性細菌是如何形成的？

多重耐藥性細菌存在於人和動物中，可以隨著時間自然形成，或透過遺傳、或不正確使用抗生素而形成；也可以經直接接觸傳染。

有甚麼常見的多重耐藥性細菌？

多重耐藥性細菌種類很多，抗藥性金黃葡萄球菌（MRSA）及耐萬古霉素腸球菌（VRE）此兩種細菌在醫院均很常見，此外亦有社區型抗藥性金黃葡萄球菌（MRSA）。

抗藥性金黃葡萄球菌（MRSA）是金黃葡萄球菌的一種，不時存在於健康人士的鼻腔和皮膚上。此耐藥性細菌對大多數抗生素產生耐藥性，故通常被稱為超級細菌。

腸球菌是腸道中常見的一種細菌。而耐萬古霉素菌株對抗生素萬古霉素產生耐藥性。

為什麼要在醫院檢測多重耐藥性細菌？

抗生素耐藥性對全球公共衛生構成重大威脅。新型耐藥性細菌於全球散播，導致抗生素對抗傳染病之療效下降。有鑑於此，多國衛生機構已採取行動以改善抗生素的使用，並建立抗生素耐藥性追蹤系統。故明德國際醫院亦加強檢測，以防止多重耐藥性細菌在院內傳播。

甚麼病人需要接受這項檢測？

病人若符合下列任何一項準則，院方會要求他們接受耐萬古霉素腸球菌（VRE）檢測：

- 過往 3 個月內，在香港或境外任何一家醫院或醫療機構曾住院或接受治療；
- 過往 3 個月內，曾入住長期護理設施（例如老人院或殘疾人士宿舍）；
- 有確診耐萬古霉素腸球菌（VRE）感染的病史。

除上述情況外，若病人過去三個月內已診斷出染上抗藥性金黃葡萄球菌（MRSA），或過去三個月內曾入住另一家醫院的深切治療部，亦需進行抗藥性金黃葡萄球菌（MRSA）檢測。

檢測如何收費？

收費取決於檢測項目及結果。所有費用已包括隔離病房的住宿、隔離程序及檢測費用。如檢測結果是陰性，病人則毋須隔離，並會轉到所選擇的房間類別。

檢測類型	收費 (港幣)	
耐萬古霉素腸球菌 (VRE)	\$3,200	入住隔離病房，測試最長六小時
耐萬古霉素腸球菌 (VRE) 及抗藥性金黃葡萄球菌 (MRSA) 檢測 (如需要)	\$4,100	入住隔離病房，測試最長六小時

如果測試結果呈陽性，病人需要在當天的其餘時間繼續隔離並須繳款以下費用：

檢測類型	收費 (港幣)	
耐萬古霉素腸球菌 (VRE)	\$5,300	全天在隔離病房中進行測試及停留
耐萬古霉素腸球菌 (VRE) 及抗藥性金黃葡萄球菌 (MRSA) 檢測 (如需要)	\$6,500	全天在隔離病房中進行測試及停留

若須入住隔離病房超過一天，從第二天起，隔離病房收費為每天 4,200 港元。

隔離措施包括甚麼項目？

隔離可減少與其他病人、訪客和工作人員的接觸。病人會分配一獨立房間，並配合多種感染控制措施，包括嚴格遵守手部衛生、使用個人防護設備 (PPE) 及一次性的用具和醫療設備。

訪客數目會加以限制，並須在房間內佩戴外科口罩，進出房間前後須洗手。

檢測呈陽性後的治療

如病人對初部檢測呈陽性，檢測樣本將會作進一步細菌培養測試。等待結果期間，病人留在病間保持隔離。主診醫生將獲悉檢測結果，再與病人相討治療方案。

病人可選擇不檢測抗藥性金黃葡萄球菌 (MDRO) 嗎？

醫院已增加此檢測作為預防院內抗藥性金黃葡萄球菌感染的措施，因此，如符合上述須檢測準則的病人，必須強制接受檢測。如不欲進行檢測，請入院前通知院方，以便重新安排手術時間。

病人可在診所接受抗藥性金黃葡萄球菌 (MDRO) 檢測嗎？

我們接受主診醫生於病人入院前所做的檢測結果。請謹記攜帶檢測報告；入院前六個月內所做的檢測，方為有效。

這些檢測一般會受保嗎？

這取決於病人保單及個別保險公司的政策。我們建議您在入院前就保單承保的範圍與保險公司聯絡。

如有任何關於抗藥性金黃葡萄球菌 (MDRO) 檢測的查詢，請致電客戶服務中心，電話 2849 0355，或電郵至 psc@matilda.org