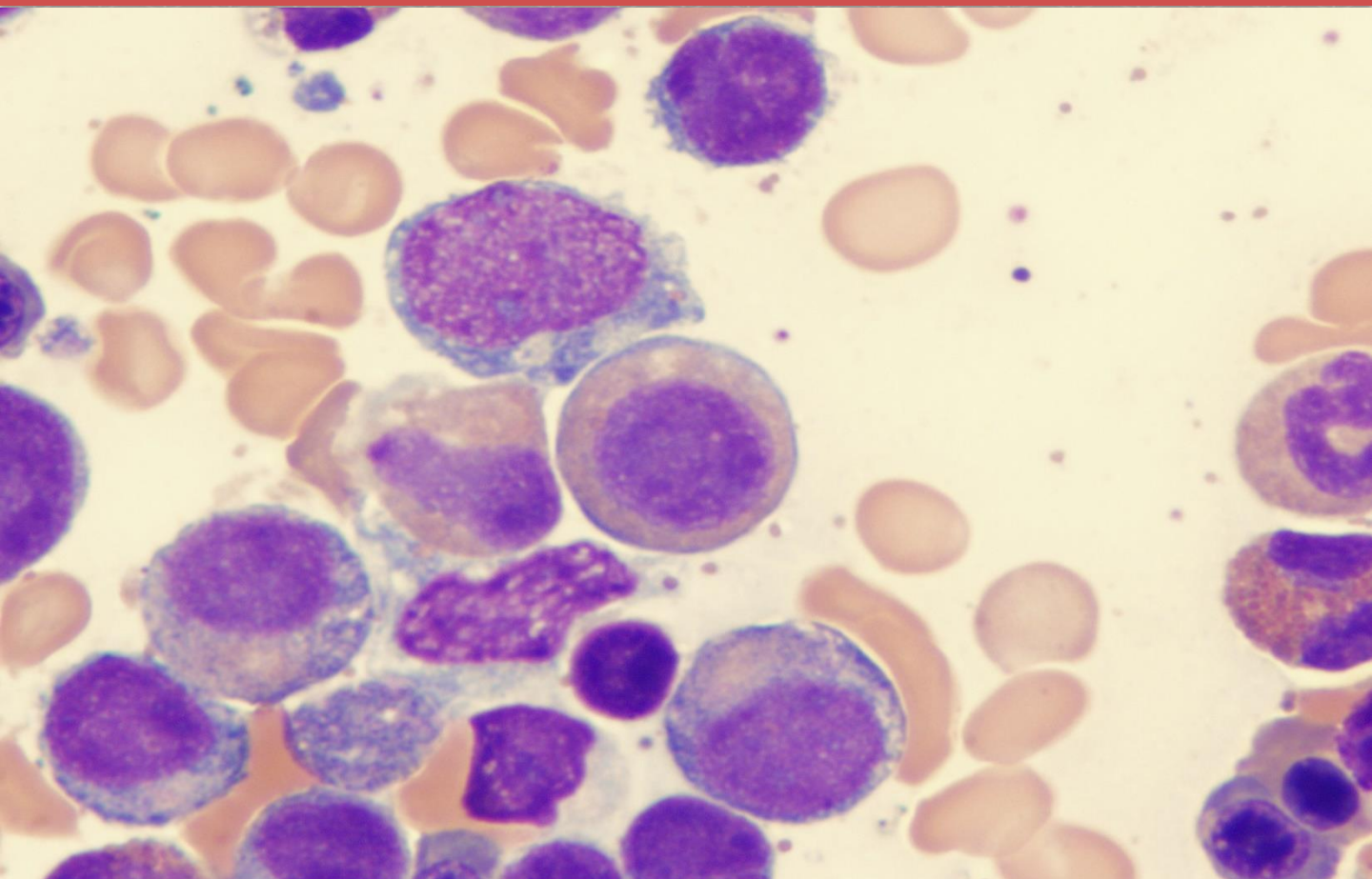


Department of  
**Haematology**

# Myelodysplastic Syndrome (MDS)



# What is Myelodysplastic Syndrome (MDS)?

MDS is a group of blood cancers caused by a malfunctioning of the bone marrow, which leads to a reduction of the number of healthy blood cells circulating in the body.

The cells that can be affected are:

- Red blood cells – which carry oxygen to organs and tissues throughout the body
- White blood cells – which protect the body by fighting against infections
- Platelets – which help the body to form clots to stop bleeding and bruising

## How are MDS Classified?

MDS are classified according to how blood cells and the bone marrow look under the microscope, as well as other factors such as:

- Blood cell counts
- Percentage of early forms of blood cells in the bone marrow
- Risk of the disease developing into Acute Myeloid Leukaemia (AML). Myeloid cells perform different functions, such as fighting bacterial infections and defending the body against parasites.

The medical terms used to describe the types of MDS can be difficult to understand. Do ask your doctor to explain how MDS is classified in your case.

# Who is at Risk?

MDS most commonly affects the elderly, although it can occur at any age. Most patients do not have any identifiable risk. It is not usually passed down to children. Some more common risk factors include:

Prior exposure to chemotherapy and radiation therapy due to treatment of other cancers



Exposure to toxic chemicals like benzene



# Symptoms of MDS

Symptoms of anemia such as tiredness and breathlessness with mild exertion



Having more infections than usual, because of a lack of healthy white blood cells



Unusual bleeding caused by too few platelets in the blood. This may include bruising, heavy periods in women, bleeding gums, nosebleeds and blood spots or rashes on the skin



Many people with MDS, however, do not have any symptoms. You may be diagnosed after a routine blood test.

# Diagnosis



During your doctor's consultation, your doctor will ask about your symptoms and perform a physical examination.



Diagnostic tests will be ordered to determine the diagnosis. These tests may include:

- Blood tests, including a full blood count and examination of your blood film
- Bone marrow examination



The test results will help your doctor prescribe a suitable treatment based on your condition.

# Staging and Prognosis

From the results of the blood test and bone marrow examination, your condition will be given a risk rating according to: very low, low, intermediate, high and very high.

Your doctor will explain to you in greater detail about this classification system and how it applies to your condition.

The prognosis, or the likely outcome, of MDS depends on your risk category and other factors not related to MDS, such as your general fitness, presence of other medical conditions and age.

# Treatment Methods

Not all patients need treatment, as some do not have any symptoms. If you are not starting on any treatment, you will have regular check-ups as advised by your doctor.

However, if your doctor recommends that you undergo treatment, this may include:

## Supportive Care

- Blood transfusions and/or medications to improve the symptoms of MDS



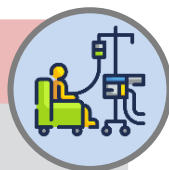
## Targeted Therapy

- Drugs targeting cells' functions affected by the disease



## Chemotherapy

- Drugs given orally or injected into the veins to kill cancer cells
- Multiple cycles are administered at regulated intervals to allow time for the body to recover in between cycles



## Bone Marrow / Stem Cell Transplant

- Aims to replace the bone marrow with "good" cells after the defective bone marrow cells are killed by high doses of chemotherapy



### **Clinic 1C**

TTSH Medical Centre, Level 1

**Contact:** 6889 4664

### **Clinic 5A**

TTSH Medical Centre, Level 5

**Contact:** 6889 4747

### **TTSH Health Library**



Scan the QR Code above to  
access TTSH Health Library

### **Myelodysplastic Syndrome**



Scan the QR Code above to  
access the softcopy of this  
brochure

Was this information helpful?  
Please feel free to email us if you have any feedback  
regarding what you have just read at  
[patienteducation@ttsh.com.sg](mailto:patienteducation@ttsh.com.sg)



© Tan Tock Seng Hospital, Singapore 2022. All rights reserved. All information correct as of February 2022. No part of this document may be reproduced, copied, reverse compiled, adapted, distributed, commercially exploited, displayed or stored in a database, retrieval system or transmitted in any form without prior permission of Tan Tock Seng Hospital. All information and material found in this document are for purposes of information only and are not meant to substitute any advice provided by your own physician or other medical professionals.