

### Targeted Therapy

The transformation of normal cells to cancer cells is the result of many genetic changes. These changes distinguish cancer cells from normal cells and can be used as a target for therapy. Either a monoclonal antibody or a chemical can be used against the target to inhibit its effects. Mabthera/Rituximab is a monoclonal antibody commonly used to treat all kinds of B-cell lymphomas, while Imatinib is a chemical drug which is very effective in treating chronic myeloid leukaemia.

### Bone Marrow Transplantation

Bone marrow transplantation is commonly used in treating various types of blood cancers. It is often the last hope for patients. There are two main types of bone marrow transplantation, i.e. autologous transplant using the patient's own marrow cells, and allogeneic transplant using marrow from HLA compatible donors, who can be a sibling or an unrelated donor. The source of the marrow cells or haematopoietic stem cells can be the marrow itself of G-CSF-driven peripheral blood stem cell or cord blood. A mini transplant can also be used for elderly patients to minimize the risk.

For enquiries and appointments,  
please contact us at:

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#### Service Hours

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Saturday: 9:00 am – 1:00 pm  
Closed on Sundays and Public Holidays

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綜合腫瘤科中心  
Comprehensive Oncology Centre

# Haematological Cancer Plasma Cell Myeloma



## Winning Against Cancer



養和醫院  
Hong Kong Sanatorium & Hospital

綜合腫瘤科中心  
Comprehensive Oncology Centre

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Our Centre provides state-of-the-art services in haematology and haematological oncology. Our Haematopathology Laboratory has a wide range of diagnostic tests available which are essential for modern management of haematology patients. After making an accurate diagnosis, optimal treatments are given promptly to obtain the best clinical outcome possible.

Blood cancers are one of the top ten cancers in Hong Kong. Every year, over 1,000 new cases are diagnosed. They include leukaemia, lymphoma and myeloma.

## Plasma Cell Myeloma

Lymphocytes may mature into plasma cells, which produce antibodies that fight infection. When transformed, it leads to malignancy of plasma cells, which is called plasma cell myeloma or plasmacytoma. While the causes remain unknown, the transformation may be preceded by a condition called “Monoclonal Gammopathy of Undetermined Significance (MGUS)”. A small percentage of the elderly population have MGUS.

### Common Subtypes

- Plasma Cell Myeloma
- Plasmacytoma
- Light Chain Disease
- Non-Secretory Myeloma
- Amyloidosis

### Clinical Presentations

- More common among the elderly
- Bone pain
- Bone fracture
- Anaemia
- Kidney failure
- Infections
- High blood calcium
- Bleeding tendency

### Diagnosis

- Presence of paraprotein in blood
- Bone X-ray or bone MRI showing abnormal bone changes
- Bone marrow or tumour biopsy showing abnormal plasma cells in bone marrow
- Examination of kidney function and blood calcium level

### Treatment

- Various combinations of chemotherapy
- Bortezomib (Velcade)
- Thalidomide or Lenalidomide
- Dexamethasone or Prednisolone
- Cyclophosphamide or Melphalan
- Young patients may benefit from autologous or allogeneic bone marrow transplantation

### Prognosis

Survival has improved to a great extent in recent years because of the availability of many new effective drugs.

## Common Treatment

### Chemotherapy

Most blood cancer patients respond very well to various combinations of chemotherapy. Chemotherapy drugs are effective in eradicating rapidly proliferating cells. As blood cancer cells often grow at a very high rate, they are more susceptible to the effects of chemotherapy. Some normal cells in our body also grow rapidly, e.g. the bone marrow cells. Damages to the normal cells are responsible for the side effects, and thus patients must be monitored closely. Serious infections may complicate low white cell count and bleeding tendency if the platelet counts are low. There may also be anaemia. Haematopoietic growth factor G-CSF may be used. Red cells and platelet transfusions may be given. Chemotherapy may be given in our Chemotherapy Centre on either an outpatient or inpatient basis, depending on the intensity of the therapy.

### Radiotherapy

High-energy radiation is commonly used in cancer treatment. Blood cancer cells are very sensitive to radiotherapy, making it an effective treatment for local control of blood cancers and an adjunct to chemotherapy.