Introduction
The bone marrow is widely distributed throughout the body but functions as a single organ with a total weight of 3000 to 4000 grams in adults. It is the site of primary production of peripheral blood cells, namely, the red blood cells for oxygen transport, the white blood cells for body defense and immunity, and the platelets for blood clotting. Bone marrow examination is therefore an integral part of diagnosis and management of patients with hematological disorders.

Indication
- Unexplained anemia, decrease in white blood cells or platelets
- Suspected leukemia or marrow infiltration by abnormal cells
- Unexplained enlargement of lymph glands, spleen, or liver; and in fever of unexplained origin
- Staging of malignant lymphoma
- Assessment of marrow status pre and post chemo-radiotherapy, and bone marrow transplantation.

The Operation / Procedure
1. Marrow examination is a minor bedside surgical procedure. It is done under local anesthesia and strict aseptic technique.
2. Mild discomfort during marrow aspiration may be occasionally encountered. This is readily alleviated with the use of local anesthesia.
3. The usual site for examination is at the posterior part of the iliac crest which is part of the pelvic bone. Occasionally, when marrow aspiration is not possible from the iliac crests, other sites such as the sternum or the tibia (in children) may be chosen.
4. With the patient assuming a comfortable prone position, a special needle is inserted. Only a small amount, i.e. a few mls of marrow blood is aspirated. In some cases, an extra specimen of a small piece of bone is taken.
5. No suture is required at the puncture site.
6. The whole procedure usually takes about 10 minutes.

Before the Operation / Procedure
A written consent is required.

After the Operation / Procedure
1. There may be mild oozing from the puncture wound which can be prevented by pressure dressing and lying supine for a while.
2. If you find the dressing is wet, inform your nurses. New pressure dressing will be applied.

Risk and Complication
Patient usually experiences a dull pain at the puncture site for several days which can be relieved by simple analgesics.

Disclaimer
This leaflet only provides general information pertaining to this operation / procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

Reference
Department of Medicine, Queen Mary Hospital, Procedure Information Leaflet:
Bone Marrow Examination (2003)

Patient’s Label
Patient Name: __________________________
Hospital No: __________________________
Adm No/Episode No: ______________________

Patient’s Signature: ___________________ Date: _______________