

Treatment Goals of PIPAC

PIPAC is a salvage therapy for advanced cancers with peritoneal metastases. This treatment is aimed at relieving symptoms and slowing the progress of peritoneal disease and may be combined with other forms of treatment where appropriate. PIPAC does not usually cure advanced cancers.

Clinical Trial

PIPAC is still an experimental procedure in Singapore. In the NCIS/NUH, clinical trials are being conducted using PIPAC.

Risks of PIPAC

General Anaesthesia:

- Stroke (rare)
- Heart attack (rare)
- Death (very rare)

Procedural:

- Unable to perform keyhole surgery, i.e. due to scarring from previous surgery (uncommon)
- Injury to organs (rare)
- Chemotherapy side effects (uncommon)
- Bleeding (rare)

After PIPAC

After your hospital discharge, you will be reviewed in the outpatient clinic to monitor your progress and assess for any treatment side effects.

Depending on your response to treatment, you may require repeat PIPAC sessions.

Systemic chemotherapy may still be given by your oncologist after PIPAC treatment.

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Cancer Centre
NUH Medical Centre, Zone B, Level 10

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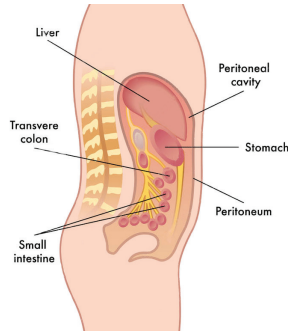
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**Pressurised
Intra-
Peritoneal
Aerosol
Chemotherapy**
For Peritoneal Metastases

The Peritoneum

The peritoneum is a membrane that covers the organs in the abdominal cavity. It helps to support these organs and contains the blood vessels and nerves that supply them. The space in the abdominal cavity covered by the peritoneum is also known as the **peritoneal cavity**.

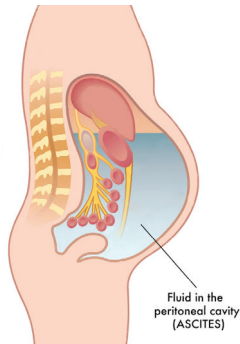


Peritoneal Metastases

Metastasis occurs when cancers spread from the initial organ to other parts of the body. Certain cancers, such as those from the stomach, colon, and ovary, may metastasise to the peritoneum. Peritoneal metastases denote Stage IV disease in most cancers, and are difficult to treat. These metastases tend to produce fluid in the abdomen, known as ascites or may cause obstruction of the intestines.

Symptoms

- Bloating
- Abdominal pain
- Nausea, vomiting
- Constipation
- Loss of appetite
- Weight loss



Peritoneal metastases are difficult to treat, and best managed by a multi-disciplinary team comprising of surgeons and medical oncologists.

Treatment Options for Peritoneal Metastases

Systemic Chemotherapy

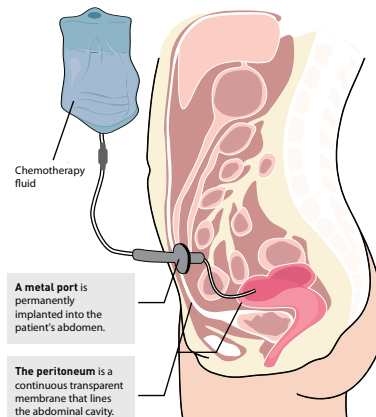
Chemotherapy drugs are given as tablets, or more commonly, through intravenous access, where the drug circulates through the whole body. This type of treatment is suitable for cancers that have metastasised to multiple parts of the body.

Cytoreductive Surgery (CRS) with Hyperthermic Intraperitoneal Chemotherapy (HIPEC)

CRS is an extensive surgery that removes all visible cancers within the abdominal cavity. At the end of CRS, a heated chemotherapy solution is applied in the peritoneal cavity to destroy the remaining microscopic cancer cells that cannot be seen with the naked eye.

Intra-Peritoneal (IP) Chemotherapy

An IP port is inserted into the peritoneal cavity via laparoscopic (keyhole) surgery. Part of the port is buried under the skin, and is connected to a tube that enters the intra-peritoneal space. Chemotherapy drugs may then be injected into the port.

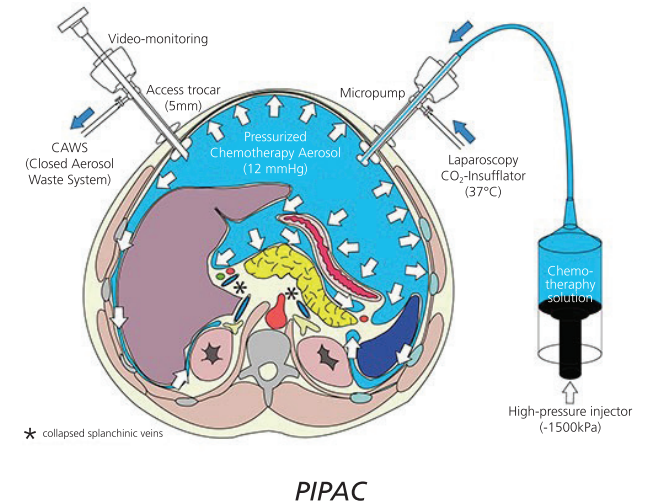


Intra-Peritoneal Chemotherapy

Pressurised Intra-Peritoneal Aerosol Chemotherapy (PIPAC)

PIPAC is a novel method of delivering chemotherapy directly into the peritoneal cavity in an aerosol form. PIPAC utilises the physical properties of pressurised gas to distribute the drug evenly and deeply. This allows greater penetration of the drug into the cancer cells, with reduced systemic side effects of the chemotherapy agent.

PIPAC is performed as a short and simple laparoscopic (keyhole) surgery. Under general anaesthesia, small instruments will be placed into the abdomen. A micro-pump will deliver the chemotherapy drug into the peritoneal cavity as an aerosol. At the end of the procedure, any residual gas within the peritoneal cavity will be removed.



Patients are admitted to the hospital for PIPAC. The typical duration for PIPAC to be administered is approximately an hour. Patients will be monitored in the ward before discharge.