

Kanser & Kewajaran Berpuasa



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Overview

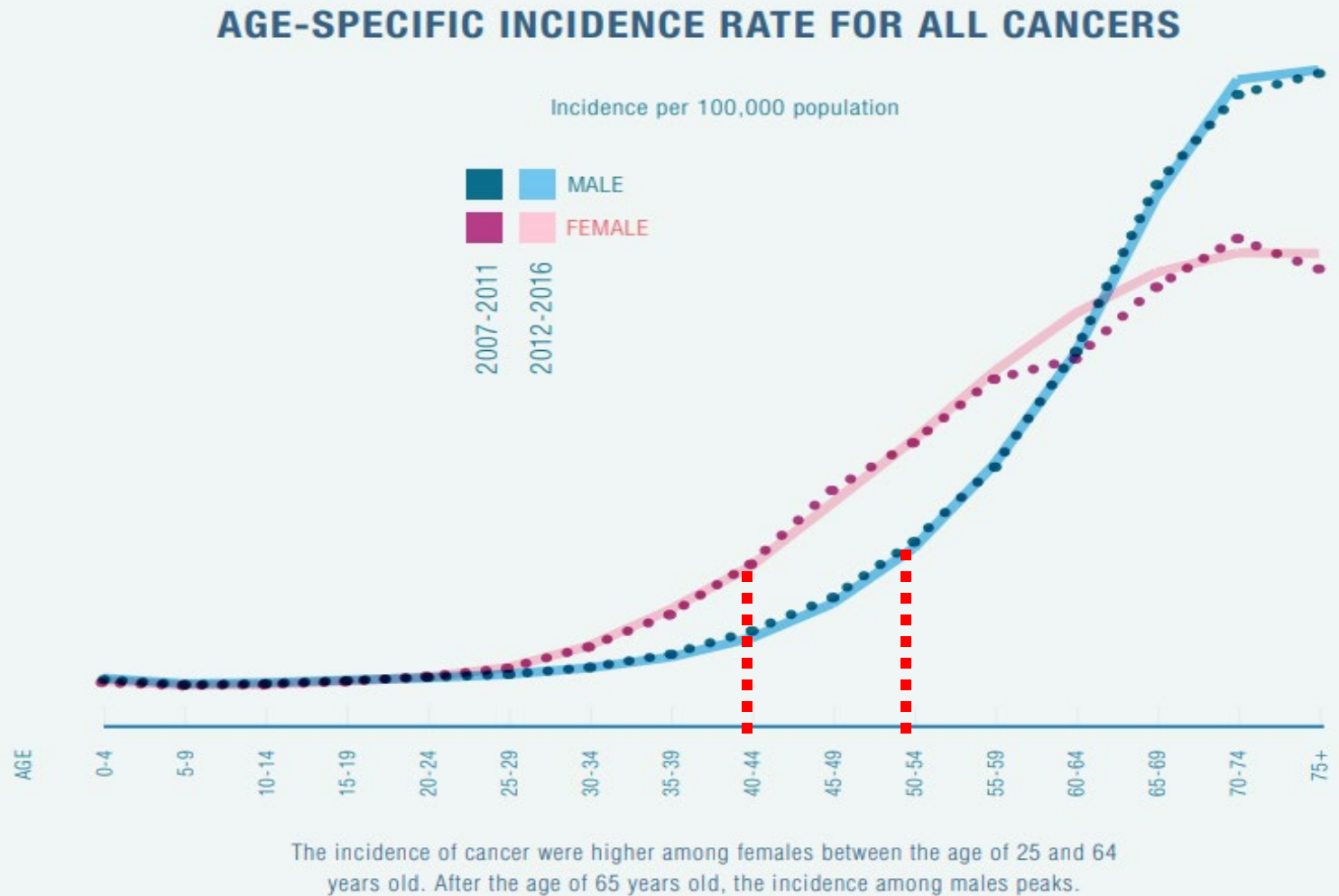
- Status kanser di Malaysia
- Cara-cara perawatan kanser
 - Radioterapi
 - Kemoterapi
- Kanser & Kewajaran berpuasa
 - Penangguhan rawatan
 - “cuti” rawatan
 - Efek puasa ke atas kanser
- Garis-panduan
- Rumusan

Table 1: Top 5 Principal Causes of Deaths in MOH Hospitals, Malaysia

	2004	2009	2014	2019
1 st	Septicaemia (15.10%)	Heart Disease & Diseases of Pulmonary Circulation (16.09%)	Diseases of Circulatory system (23.34%)	Diseases of Circulatory system (22.27%)
2 nd	Heart Disease & Diseases of Pulmonary Circulation (14.52%)	Septicaemia (13.82%)	Diseases of Respiratory System (18.19%)	Diseases of Respiratory System (21.17%)
3 rd	Cancer (9.54%)	Cancer (10.85%)	Certain infectious & Parasitic Diseases (14.35%)	Certain infectious & Parasitic Diseases (12.47%)
4 th	Cerebro- vascular disease (8.40%)	Pneumonia (10.38%)	Cancer (13.02%)	Cancer (12.18%)
5 th	Accidents (6.07%)	Cerebro- vascular disease (8.43%)	External causes of morbidity and mortality (9.30%)	Diseases of the genitourinary system (5.93%)

Source: Health Facts, Ministry of Health (3)

Kadar Kanser Mengikut Umur



Insidens Mengikuti Kaum & Jantina

Cancer Incidence In Malaysia From 2007 To 2016 (By Sex And Ethnicity)



Kadar Kematian Mengikut Kaum -Kanser Payudara

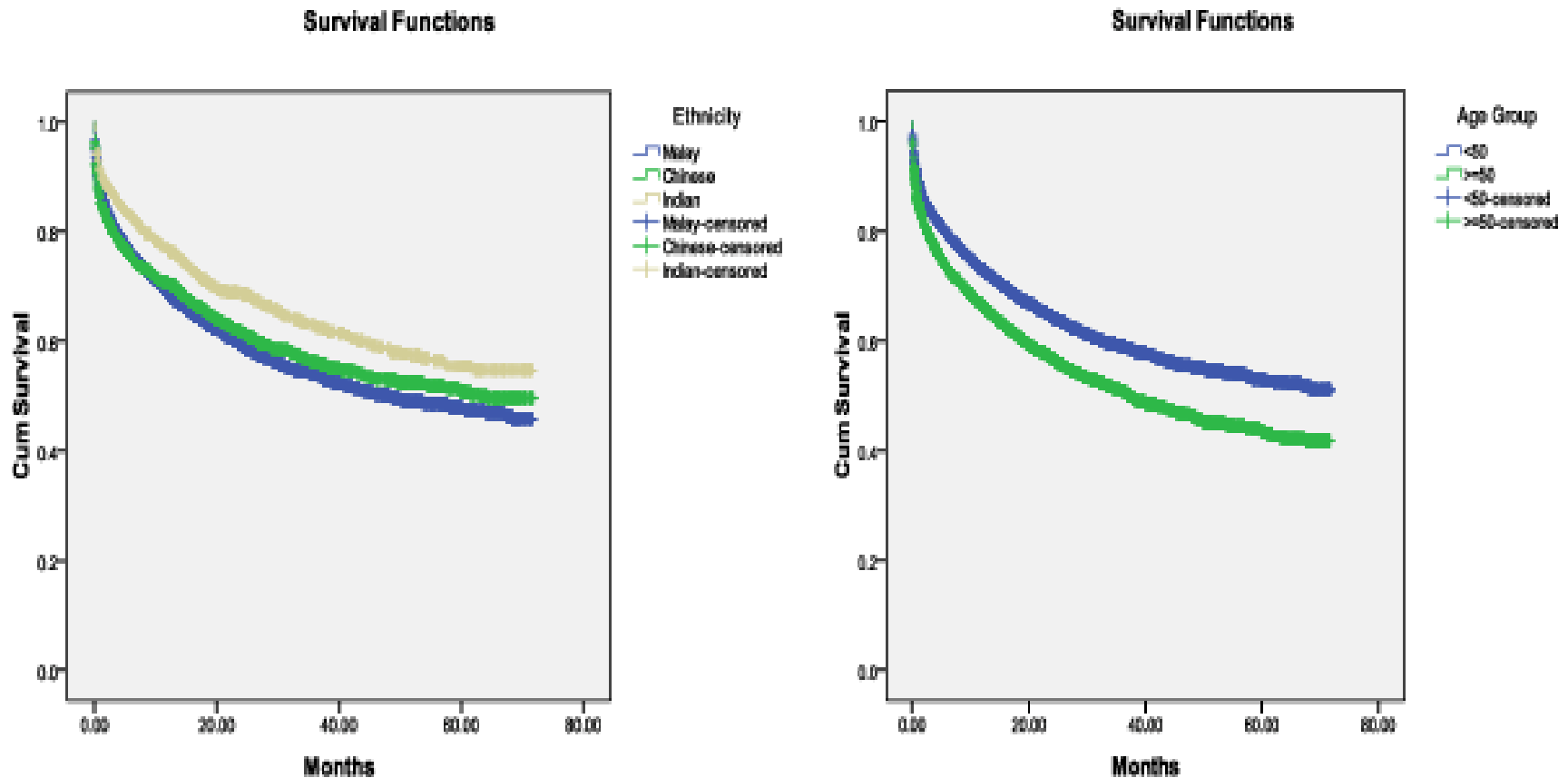


Figure 3. Five-Year Survival Based on A) Ethnic Group

Cara Perawatan Kanser

Perawatan Kanser Moden

- Surgery
- Radioterapi
- Kemoterapi
- Rawatan tersasar (targeted therapies)
 - “Tyrosine kinase inhibitor”
 - “anti-angiogenesis”
 - “immunotherapy”

Strategi Perawatan Kanser

- Radikal / Kuratif
- Adjuvan
 - Selepas pembedahan apabila di suspek ada kanser mikroskopik, biasanya dengan radioterapi dan/atau kemoterapi
- Neoadjuvan
 - Sebelum pembedahan untuk mengecilkan kanser
- Paliatif

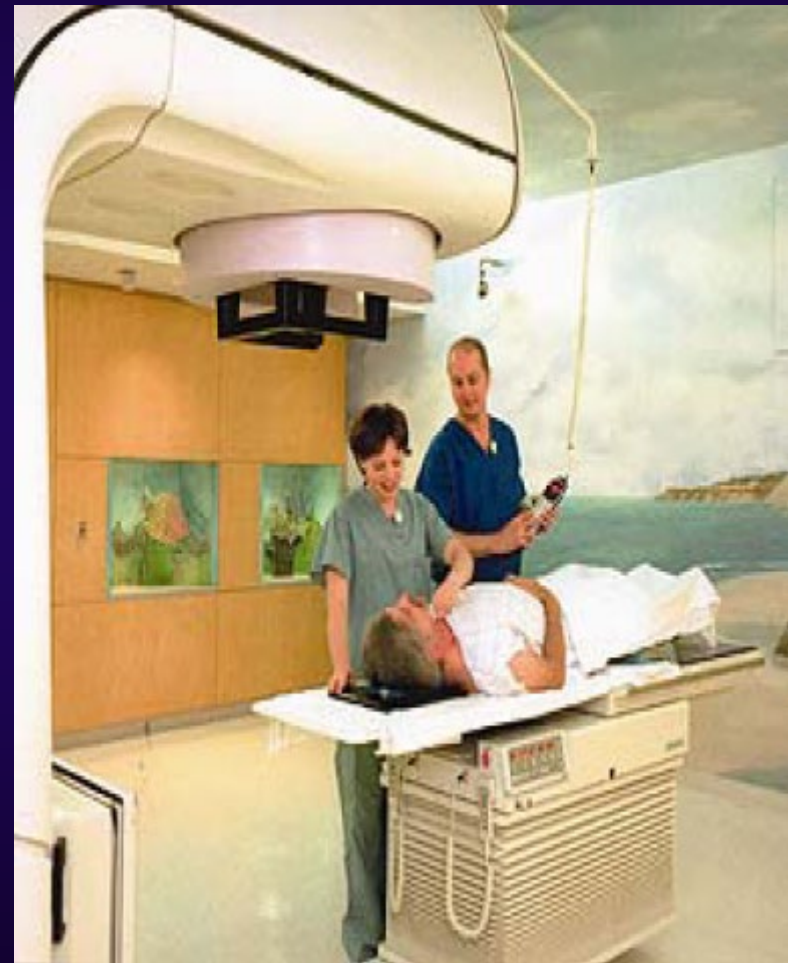
Apa Itu Radioterapi

- Penggunaan sinaran mengion dalam perawatan kanker.
- Biasanya menggunakan x-ray
 - X-ray dijanakan oleh mesin yang dinamakan pemecut linear
 - X-ray = gamma-ray
 - X-ray dari mesin, gamma dari sumber radioaktif

Cara Pemberian Radioterapi



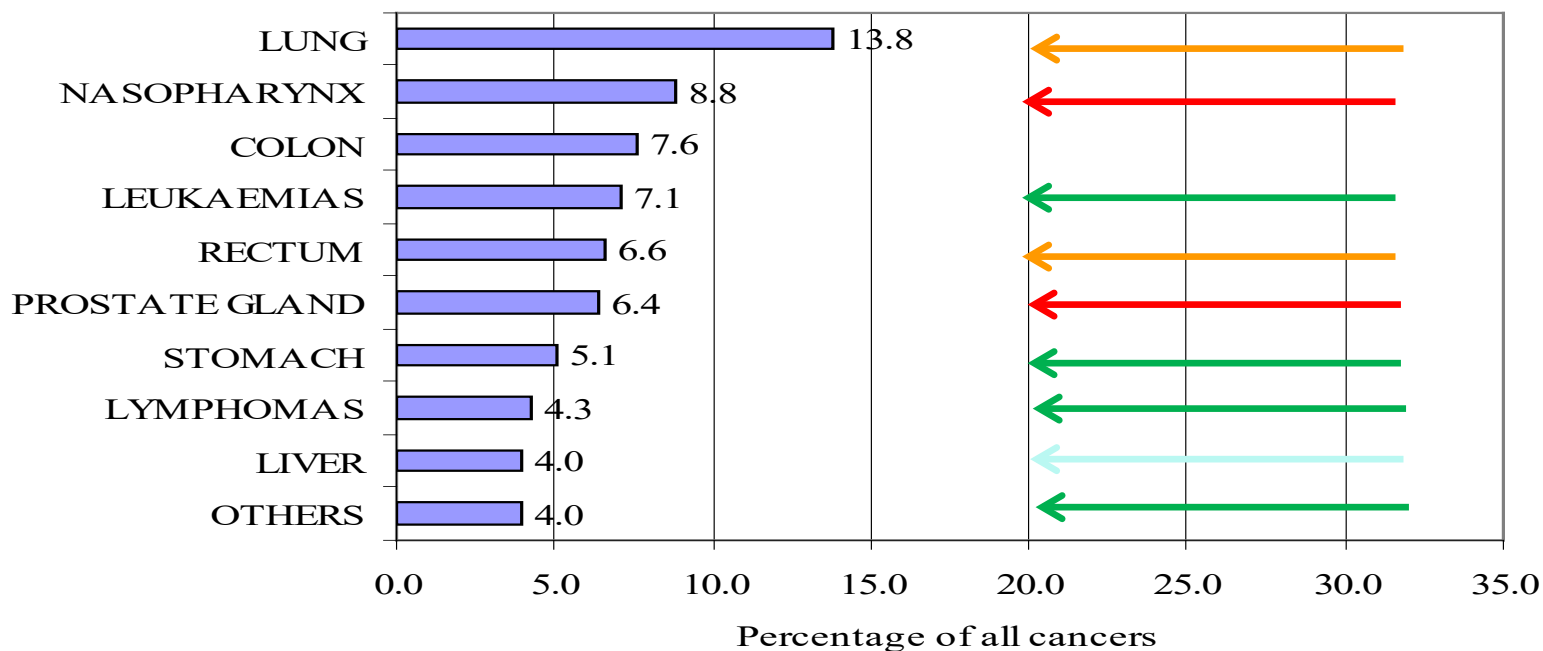
1950s



Kini

Keperluan Radioterapi Dalam Perawatan Kanser..

**Ten most frequent cancers in males,
Peninsular Malaysia 2003**



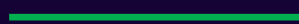
Rawatan utama



Rawatan Adjuvan



Jarang-jarang



Kadang-kadang



Source: NCR 2003

50% pesakit kanser memerlukan radioterapi sepanjang penyakit mereka

Introduction to radiotherapy

Radiology vs Radioterapi

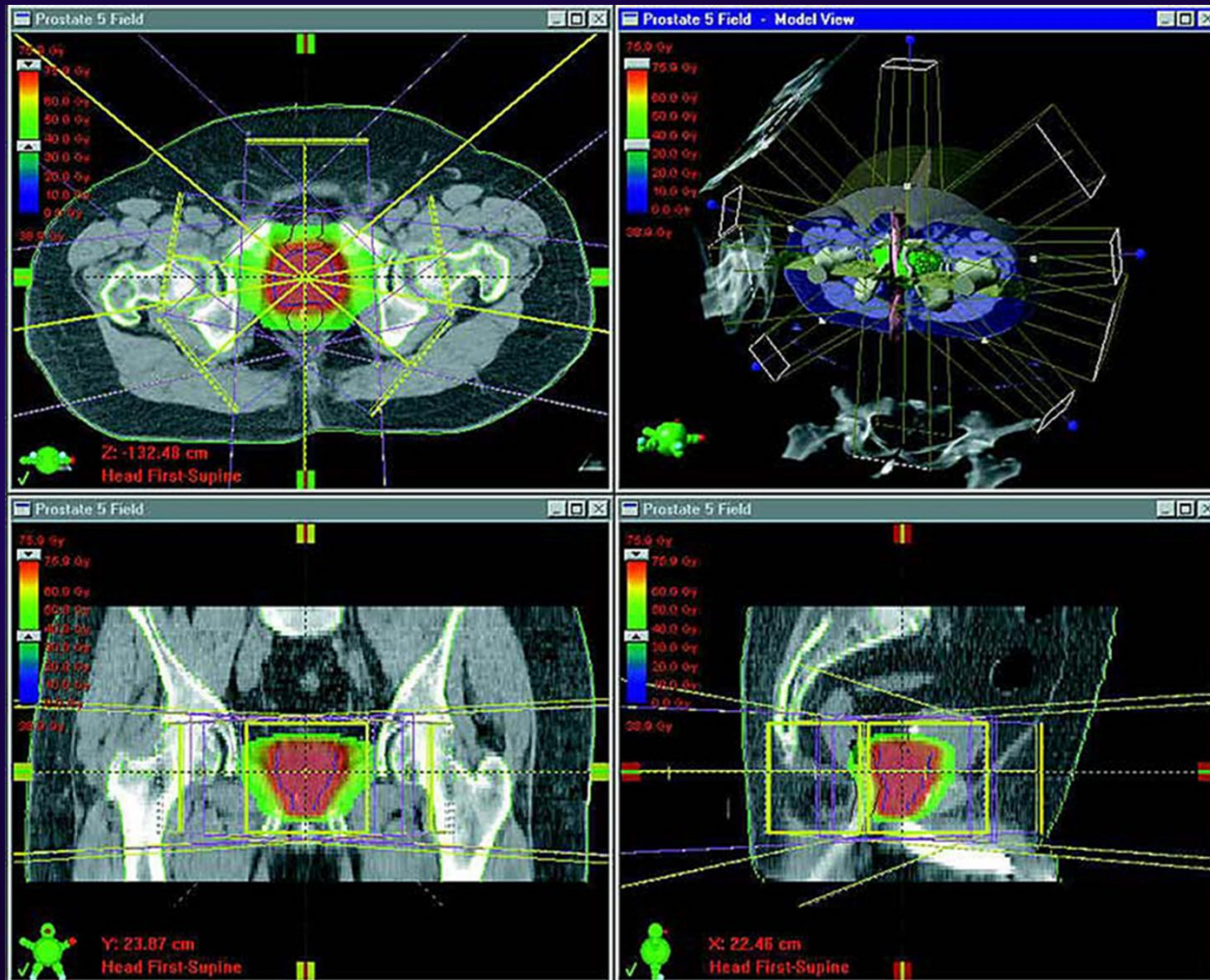
- X-ray yang digunakan dalam pengimejan diagnostic adalah serupa dengan x-ray yang digunakan untuk radioterapi
 - Tenaga x-ray radioterapi jauh lebih tinggi radiotherapy
- X-rays
 - diagnostik 30 - 120 KV
 - radiotherapi 1 MV- 20 MV



VS



Perancangan Radioterapi 3D & IMRT



Kesan Sampingan Akut

Grade 1
Erythema



Grade 2 Dry
desquamation



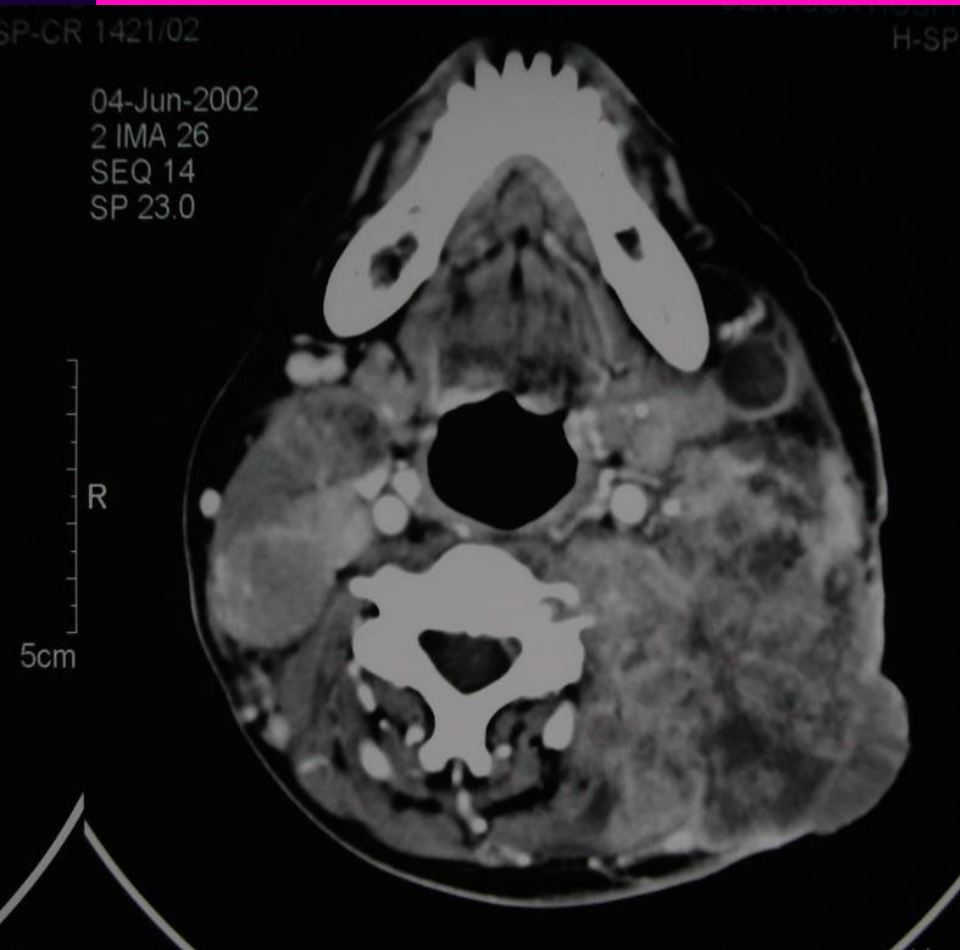
Grade 3 Moist



Grade 4



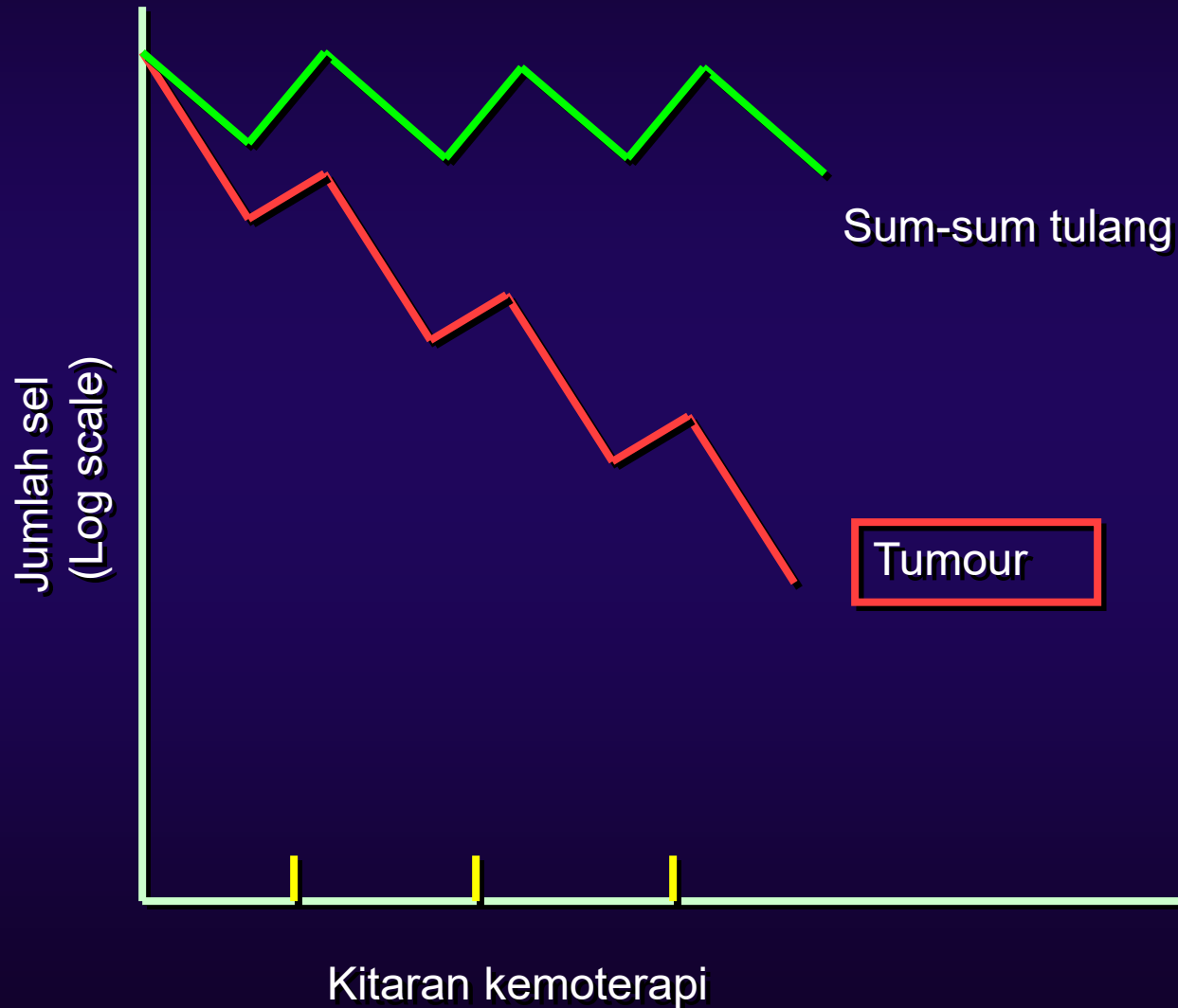
Kawalan Kanser Setempat



Kemoterapi

- Penggunaan ubat sitotoksik untuk perawatan kanser
- Kemoterapi curative
 - Leukaemia, limfoma
 - Kanser testis
- Kemoterapi adjuvant – untuk kanser mikroskopik
 - Perbagai terutamanya kanser payudara, usus besar, perut etc
- Rawatan diberi secara kitaran
- Ubat kemoterapi bergantung kepada jenis kanser

Kitaran kemoterapi



Terapi Sasaran

- Ubat yang digunakan tersasar kepada target yang tertentu biasanya reseptor atau protein
- Jenis-jenis
 - Anti-angiogenesis mensasar system pengaliran darah kanser
 - Payudara, ovary, kolon dll
 - Penghadang tirosin kinase merencat pembahagian sel-sel kanser
 - Paru-paru, GIST dll
 - Immonoterapi & antibodi merangsang system immune melawan kanser
 - Paru-paru, kepala & leher, kolon, payudara dll

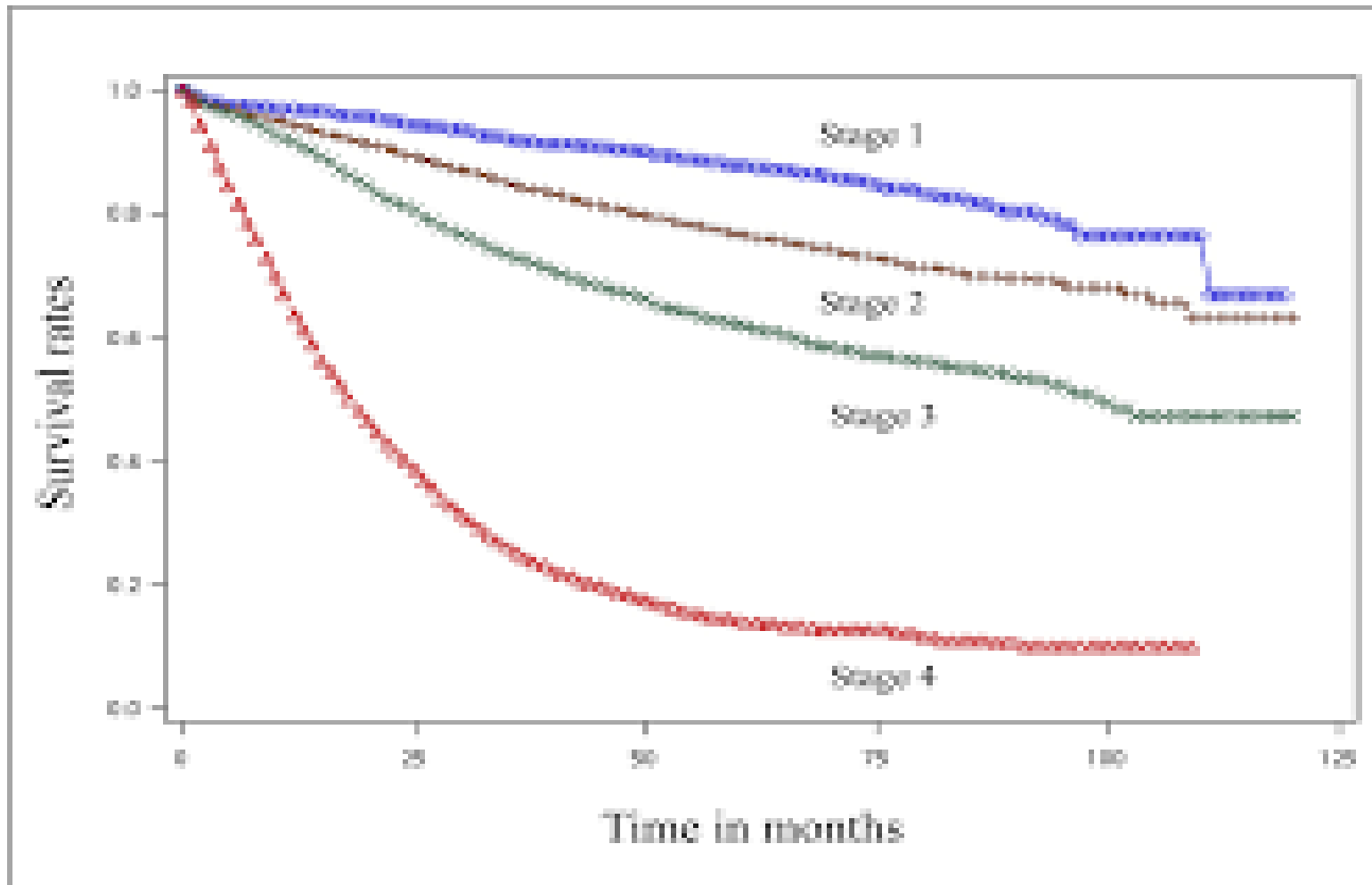
FAQs – Kanser dan Puasa

- Boleh kah saya tangguh rawatan saya?
- Boleh kah saya mengambil “cuti” dari rawatan kanser?
- Adakah puasa akan efek kanser saya?

Boleh kah saya tangguh rawatan saya?

- Pepatah Inggeris – “Time waits for no man”
- Sifat kanser – sentiasa tumbuh dan tak pernah rehat
- Menangguhkan rawatan memberi kanser peluang menjadi lebih besar dan merebak.
- Peluang sembuh bergantung kepada tahap/stage kanser

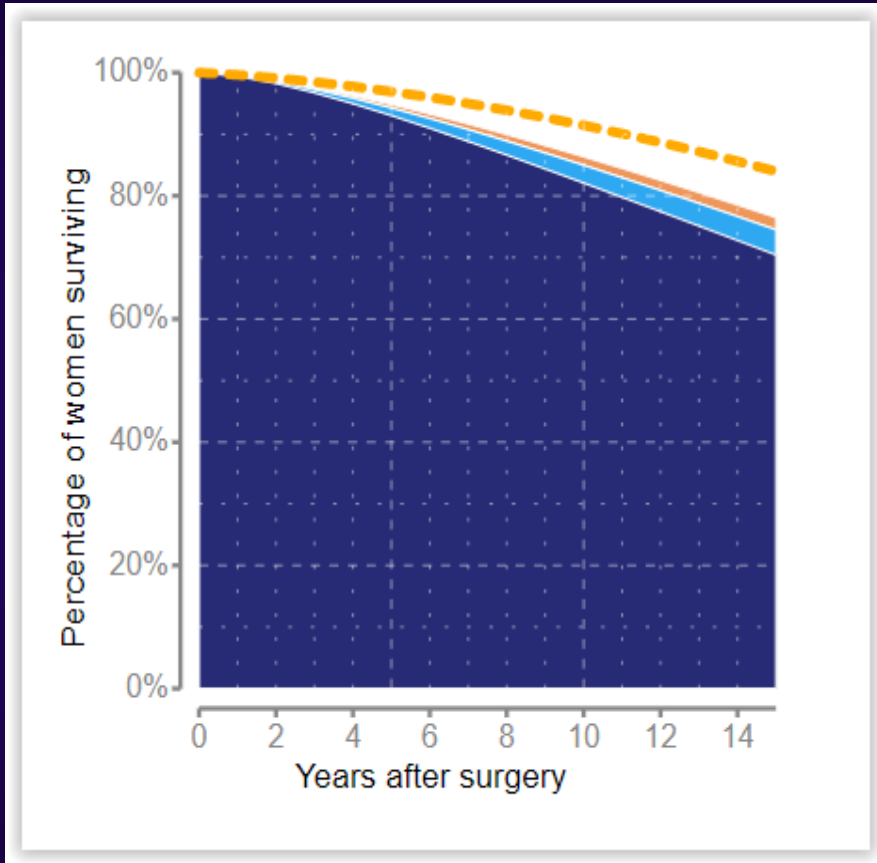
Peratusan Sembuh Dari Kanser Kolon Mengikut "stage"



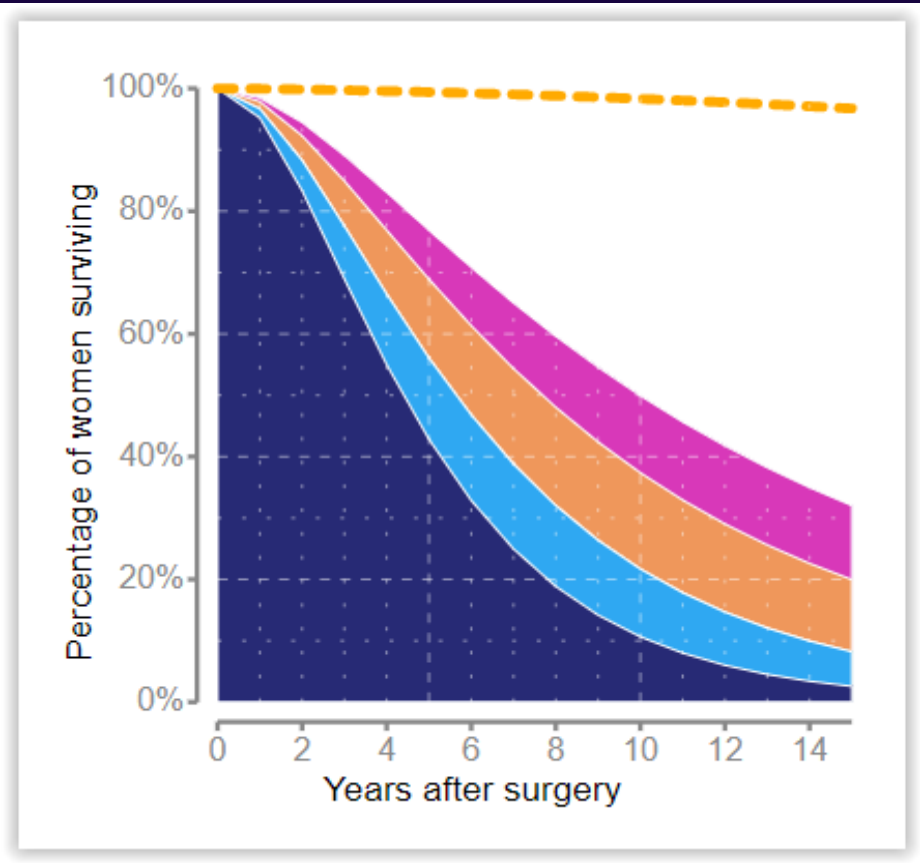
Boleh kah saya mengambil “cuti” dari rawatan kanser?

- Perawatan kanser moden biasanya perlu gabungan pelbagai rawatan (multi-modality)
- Payu-dara
 - Operasi - 1 bulan
 - Kemoterapi – 4 bulan
 - Radioterapi – 1 bulan
 - Herceptin – 6 – 12 bulan
- Kolon
 - Operasi – 1 bulan
 - Kemoterapi – 6 bulan




Keuntungan Terapi Adjuvan – Kanker Payudara



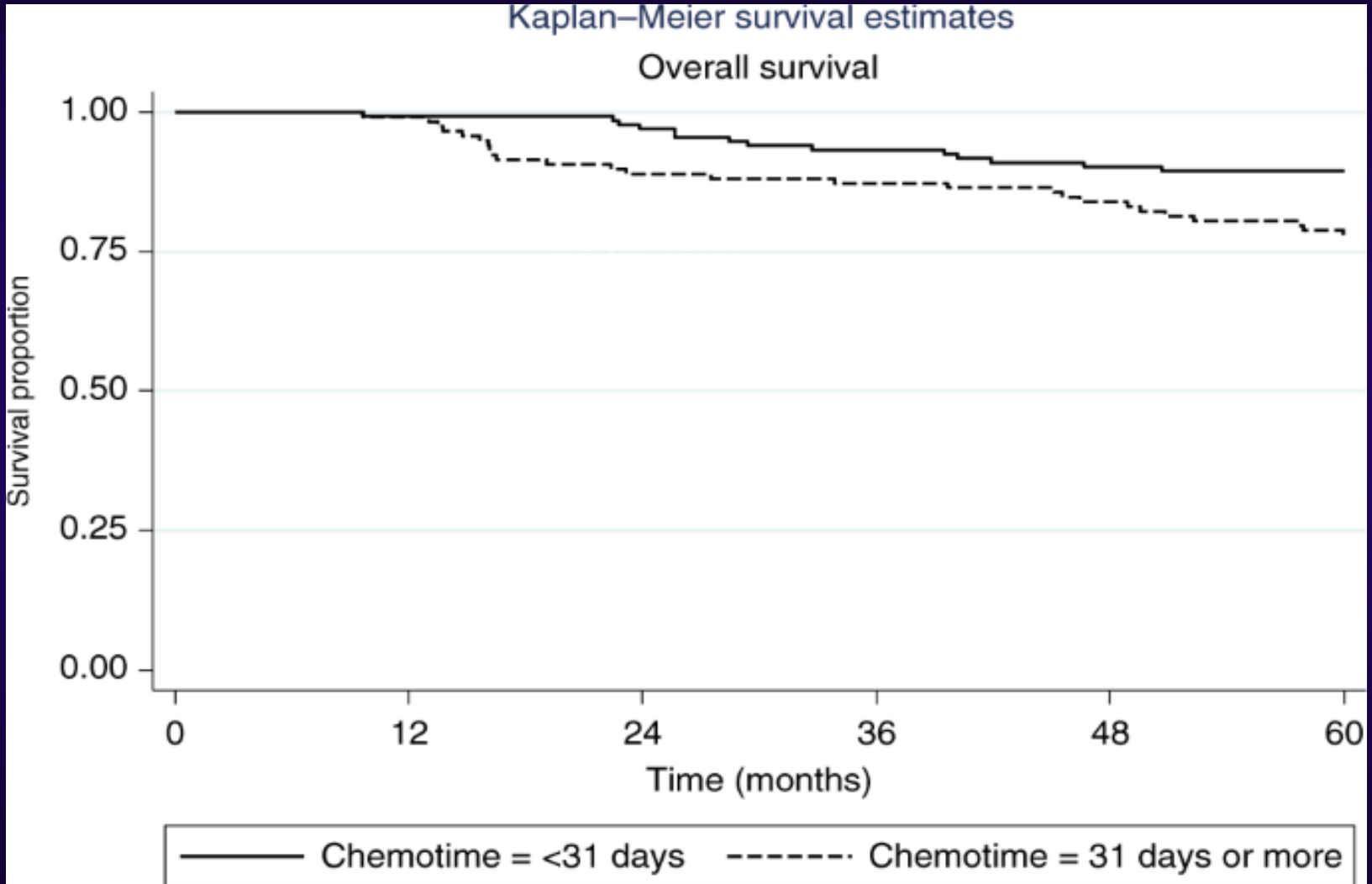
Stage 1



Stage 3

Kemoterapi 
Hormon 
Trastuzumab 

Efek menanggung rawatan adjuvant ke atas Kesembuhan – Kanser Payudara



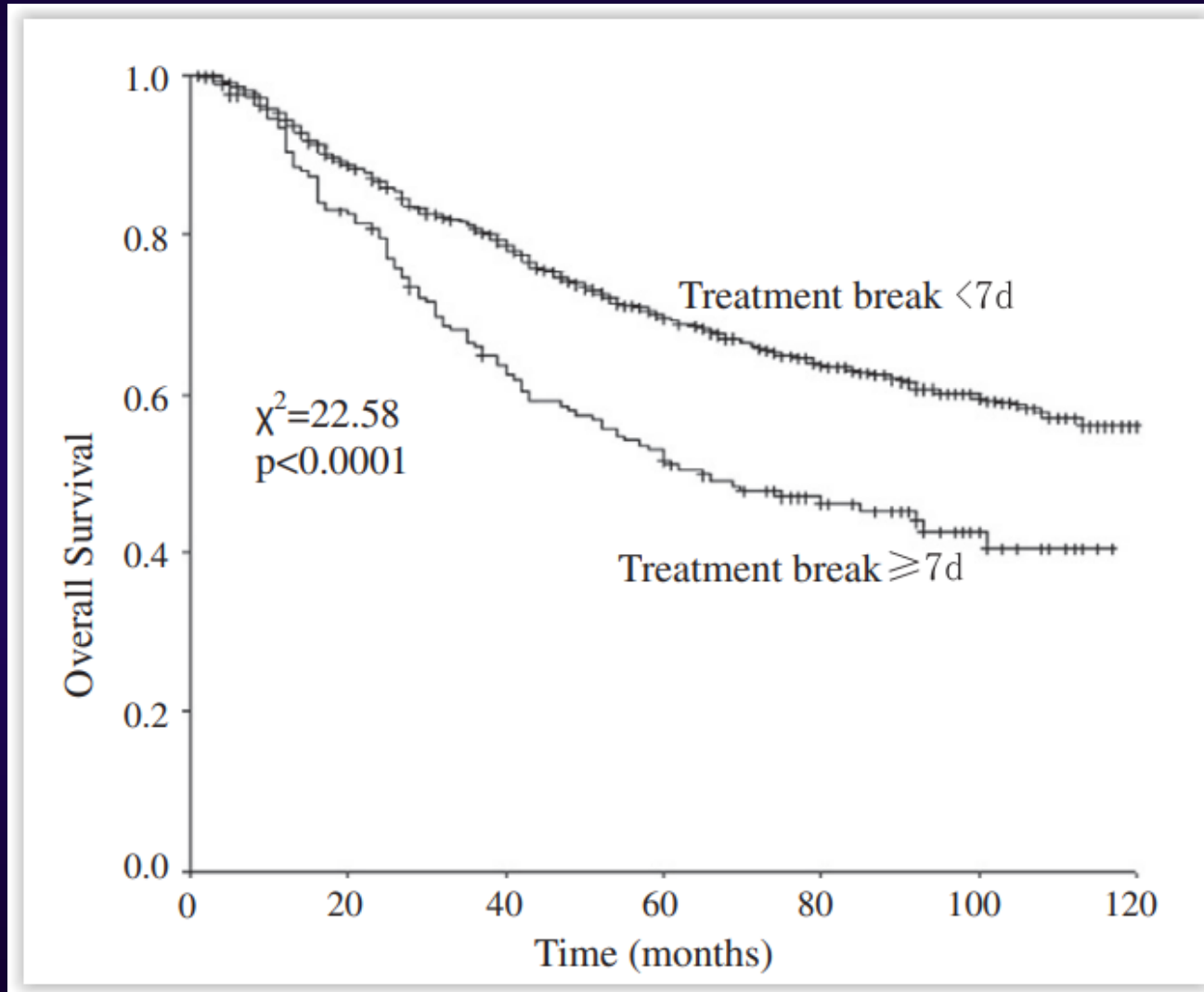
Adakah Puasa Boleh Menjadi Penawar Kanser?

- Data pra-klinikal dan haiwan ada yang menyokong efek positif puasa terhadap sel kanser
 - Data klinikal amat terhad
- Semasa rawatan radikal/kuratif kanser, kesan sampingan mungkin menjadi lebih teruk dan menyebabkan pesakit tidak dapat melengkapkan program rawatan dengan sempurna
 - Bagi rawatan radioterapi, pemanjangan tempoh rawatan memberi kesan buruk terhadap peluang sembuh

Mukositis mulut/tekak semasa radioterapi



Efek “cuti” ke atas Kesembuhan – Kanser Nasofarinks



British Islamic Medical Association (BIMA)

Garis Panduan

Very high risk (must not fast)

- Patients on **clinical trials**: drug trials often have specific requirements for patients to be fed or fasted when taking the experimental drug. These instructions must be fully adhered to, making fasting unsafe in this context.
- Patients requiring **inpatient treatment** for their cancer (or complications of it) cannot fast safely, and should be advised not to do so.
- Patients undergoing **radical radiotherapy** (especially for head and neck and upper GI malignancies) can experience serious side effects that severely limit oral intake with high risk of malnutrition; fasting would be unsafe.
- Patients receiving **immunotherapy**: immune mediated toxicities of treatment (including endocrine dysfunction) can be unpredictable and sudden in onset, making fasting potentially dangerous.

High risk (should not fast)

British Islamic Medical Association (BIMA)

Garis Panduan

High risk (should not fast)

- Patients receiving intravenous chemotherapy who have newly commenced their treatment regime, or are experiencing **significant side effects**
- Patients receiving **oral** chemotherapy or targeted therapy that require **twice daily dosing** or must be taken with food, or are experiencing significant side effects
- Patients receiving a course of **radiotherapy** (with or without chemotherapy)
- Patients immediately following cancer surgery

British Islamic Medical Association (BIMA)

Garis Panduan

Low/moderate risk (discretion of individual and medical opinion)

- Patients receiving oral chemotherapy or targeted therapy may be able to fast if:
 - They are on a once daily dosing regime
 - The drug pharmacokinetics allow it to be taken whilst fasted
- They are well established on treatment
 - They are not experiencing any side effects
- Patients receiving intravenous chemotherapy may be able to fast (except on drug administration days) if:
 - They are well established on their treatment regime
 - They have no/few manageable side effects

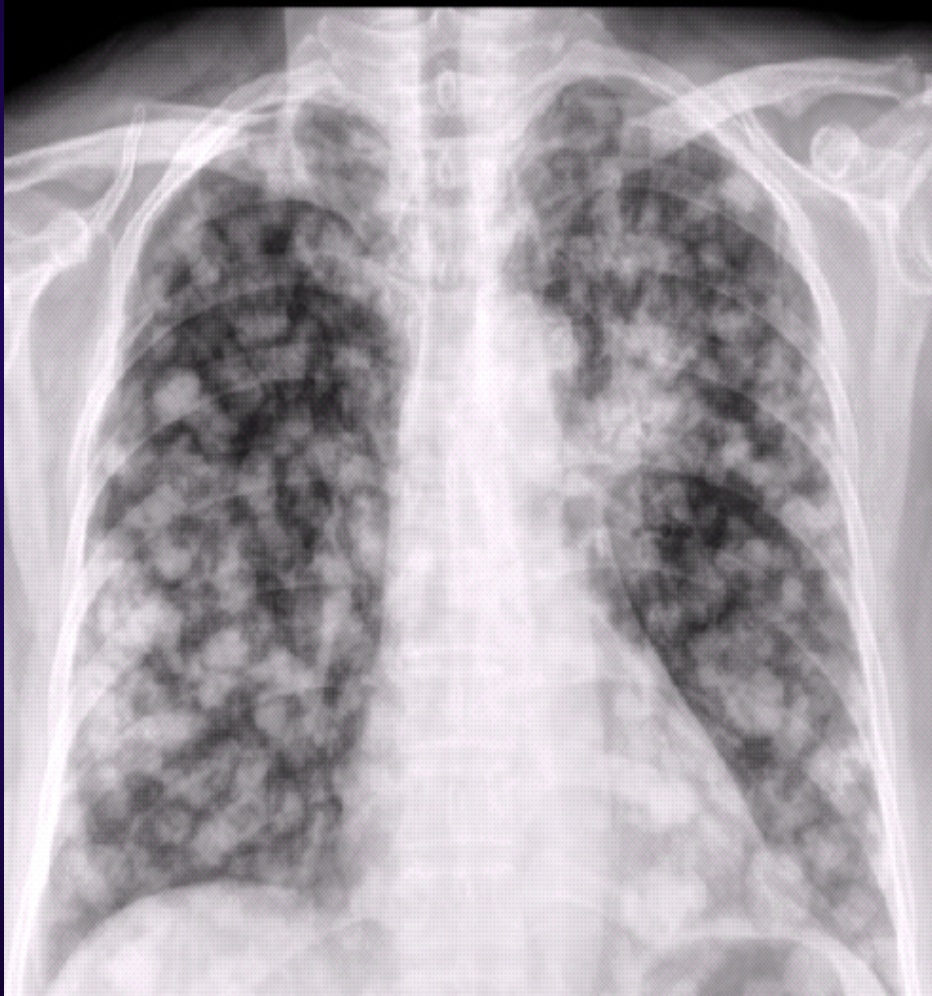
British Islamic Medical Association (BIMA)

Garis Panduan

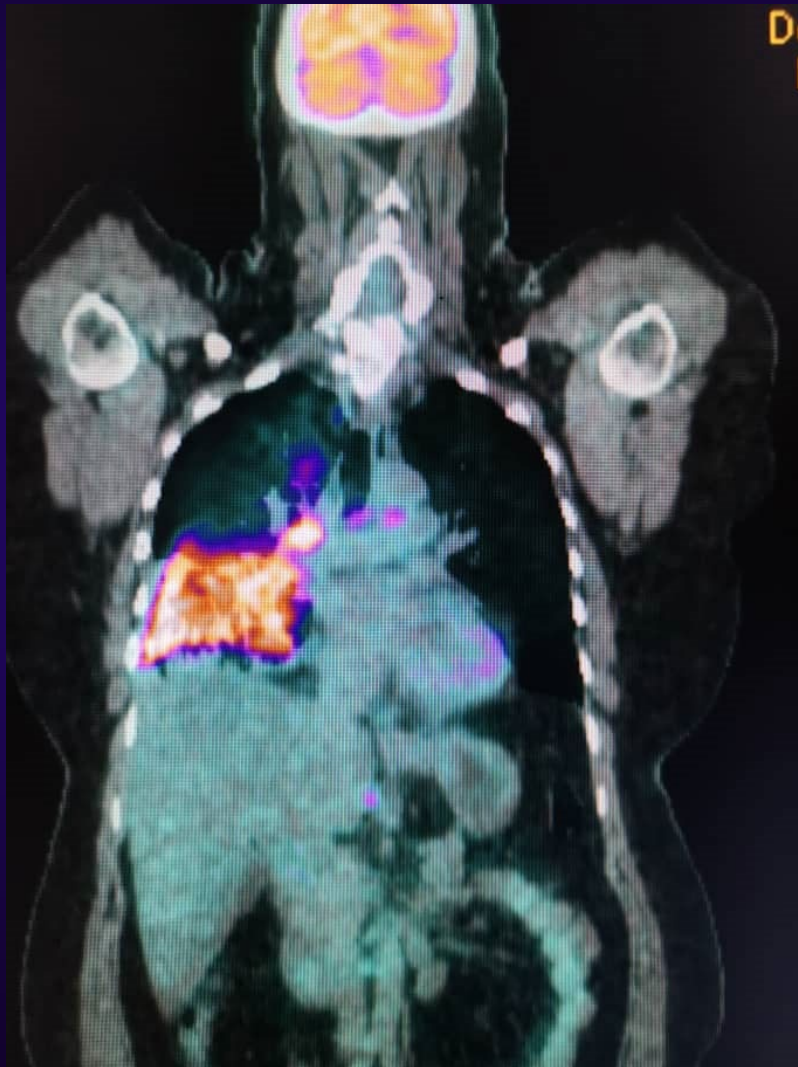
Low/moderate risk (may be able to fast)

- Patients on intravenous biological therapies (eg trastuzumab, bevacizumab) who are not experiencing significant side effects may be able to fast on non-treatment days
- Patients on endocrine therapy or androgen deprivation therapies who are not experiencing significant side effects
- Patients receiving palliative (single fraction) radiotherapy may be able to fast if their general fitness allows it
- Patients under cancer surveillance, who are more than 3 months beyond completion of cancer therapies (including surgery) and have recovered sufficiently

Kanser Paru-paru – respons terhadap terapi tersasar Gefitinib



Terapi Tersasar Kanser Paru-paru



Kemoterapi Kuratif – Kanser testis

- Boleh sembuh walaupun telah merebak



Radioterapi Kuratif



Terapi kanser “multi-modality”



Pre-chemotherapy



Post-chemo x 1

Keputusan muktamat



**Post-chemo → surgery
→ radiotherapy**

Rumusan

- Perawatan kanser biasanya lama dan melibatkan perbagai modaliti
- Kewajaran berpuasa bergantung kepada tahap kanser, strategi perawatan dan ketahanan pesakit
- Perawatan kanser kuratif adalah intensif dan pesakit tidak digalakan berpuasa
- Perawatan adjuvant berbeza dari segi intensity
 - Pesakit tidak digalakan berpuasa jika telah mengalami kesan sampingan yang teruk
 - Pesakit yang tidak banyak kesan sampingan atau menerima rawatan kurang intensity mungkin boleh berpuasa

TERIMA KASIH