

Managing Side Effects

Living well with Lymphoma

Tina Crosbie BSc Pharm (ACPR)
Ottawa Conference and Event Centre
Lymphoma Canada
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Introductions and Disclosures

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Grants/Research Support: none

Speaker's Bureau/Honoraria: AbbVie, Gilead, Janssen, Lundbeck, Roche, Takeda

Consulting Fees: none

The information within this presentation reflects the views and experiences of the presenter and may contain information not yet approved by Health Canada.

Agenda

Registration: 8:00 – 8:30 AM

'Know your Subtype': 8:30 – 9:25 AM

Dr. David MacDonald

Breakout sessions: 9:30 AM – 10:30 AM

- Aggressive NHL and Hodgkin Lymphoma
Dr C. Faught
- Indolent NHL
Dr. Melissa Toupin
- CLL/SLL
Dr. Isabelle Bence-Bruckler

Networking Break: 10:30 – 11:00 AM

Managing Side Effects: 11:00 AM – 11:45 AM

Tina Crosbie, Pharmacist

CD4 T cells: 11:45 AM – 12:30 PM

New Hope for Cancer Patients

Dr. Natasha Kekre

Lunch: 12:30 – 1:30 PM




LYMPHOMA
CANADA



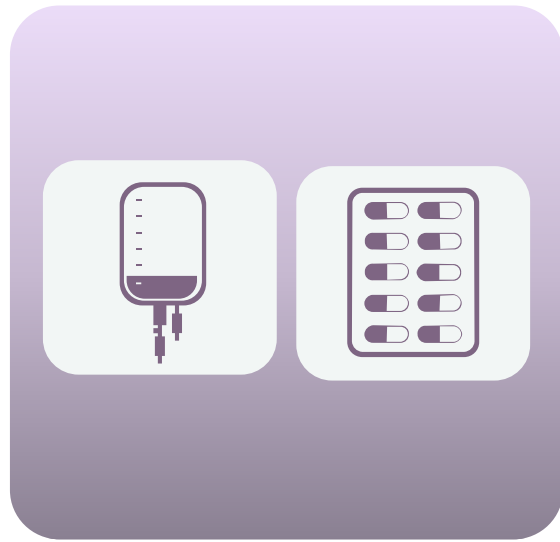




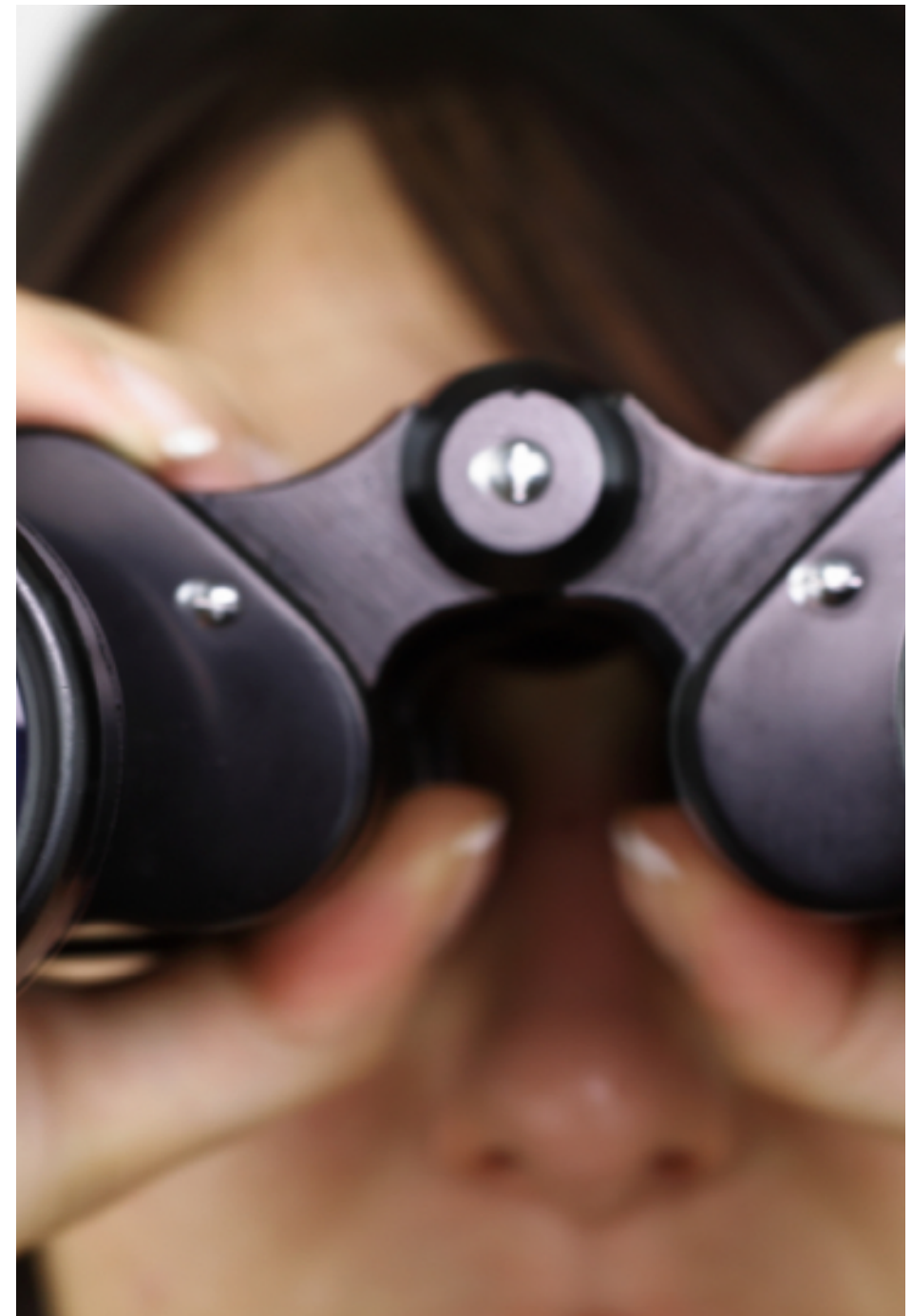
A hand is holding a fan of playing cards. The cards are fanned out from the bottom left towards the top right. The top card is the King of Spades, showing a king in a blue and red robe holding a golden orb. Below it is the 9 of Spades, then the 7 of Hearts, the 10 of Diamonds, and the 10 of Clubs. The hand is holding the cards from the bottom left, with the thumb and index finger visible. A semi-transparent white circle is overlaid on the left side of the image, containing the text.

We have no control over
the cards we are dealt,
But we can control how
we play them.

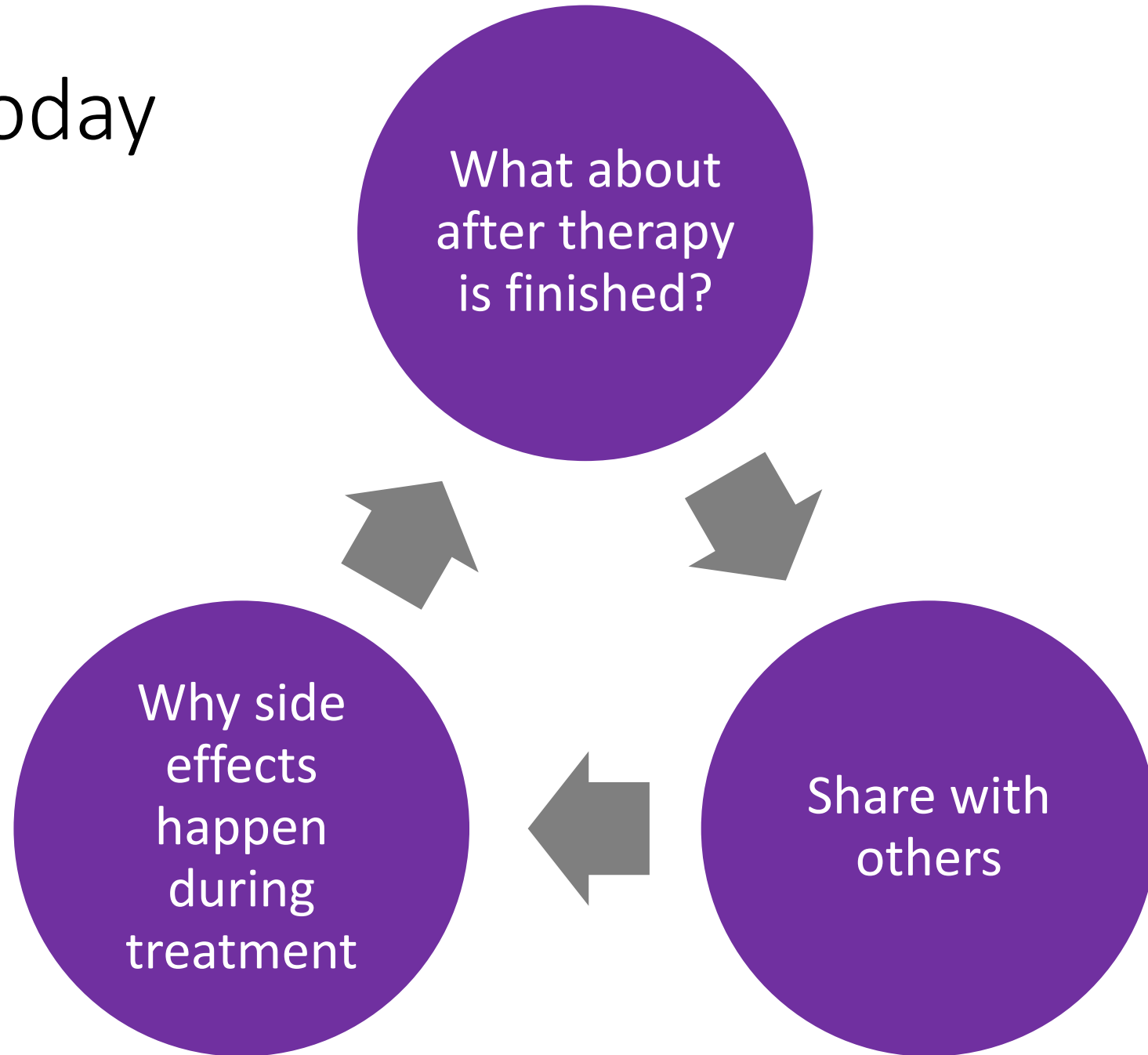
Randy Pausch



Limit



Plan for Today

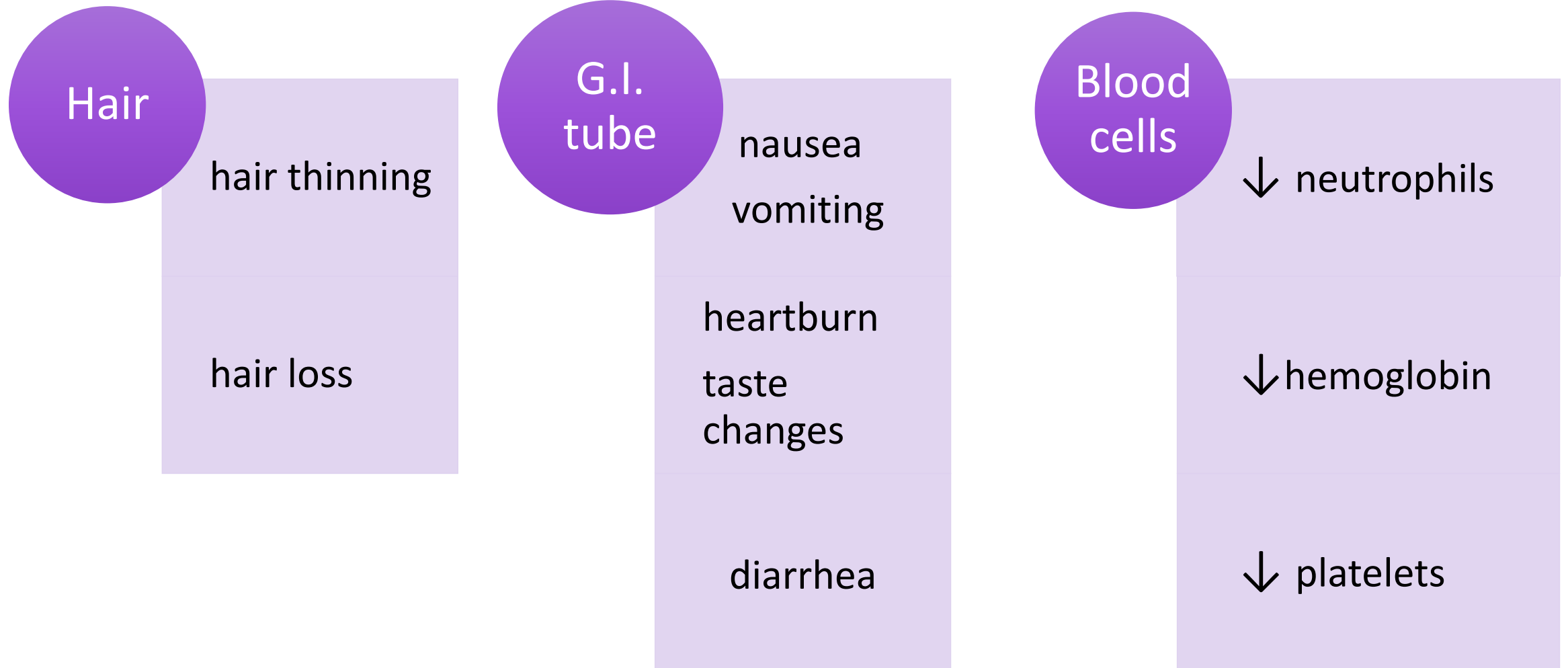


Unwanted effects during therapy

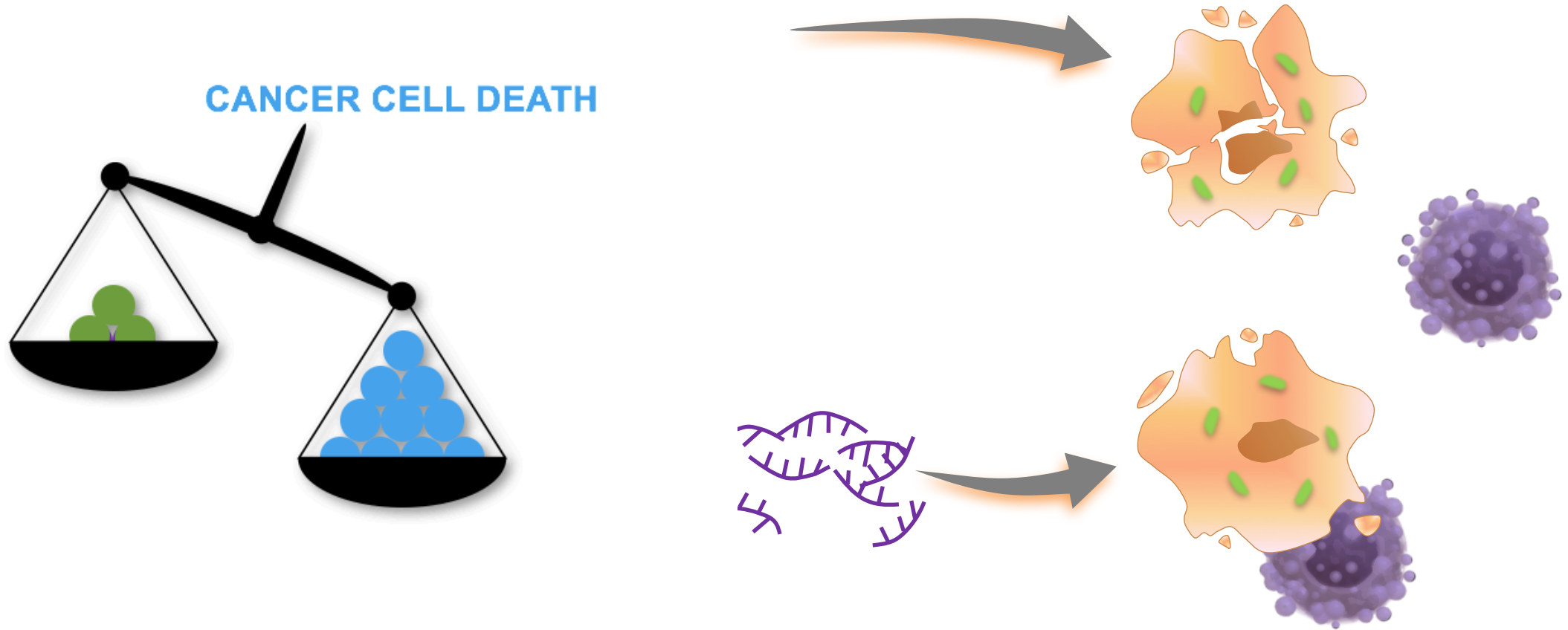


Stand up

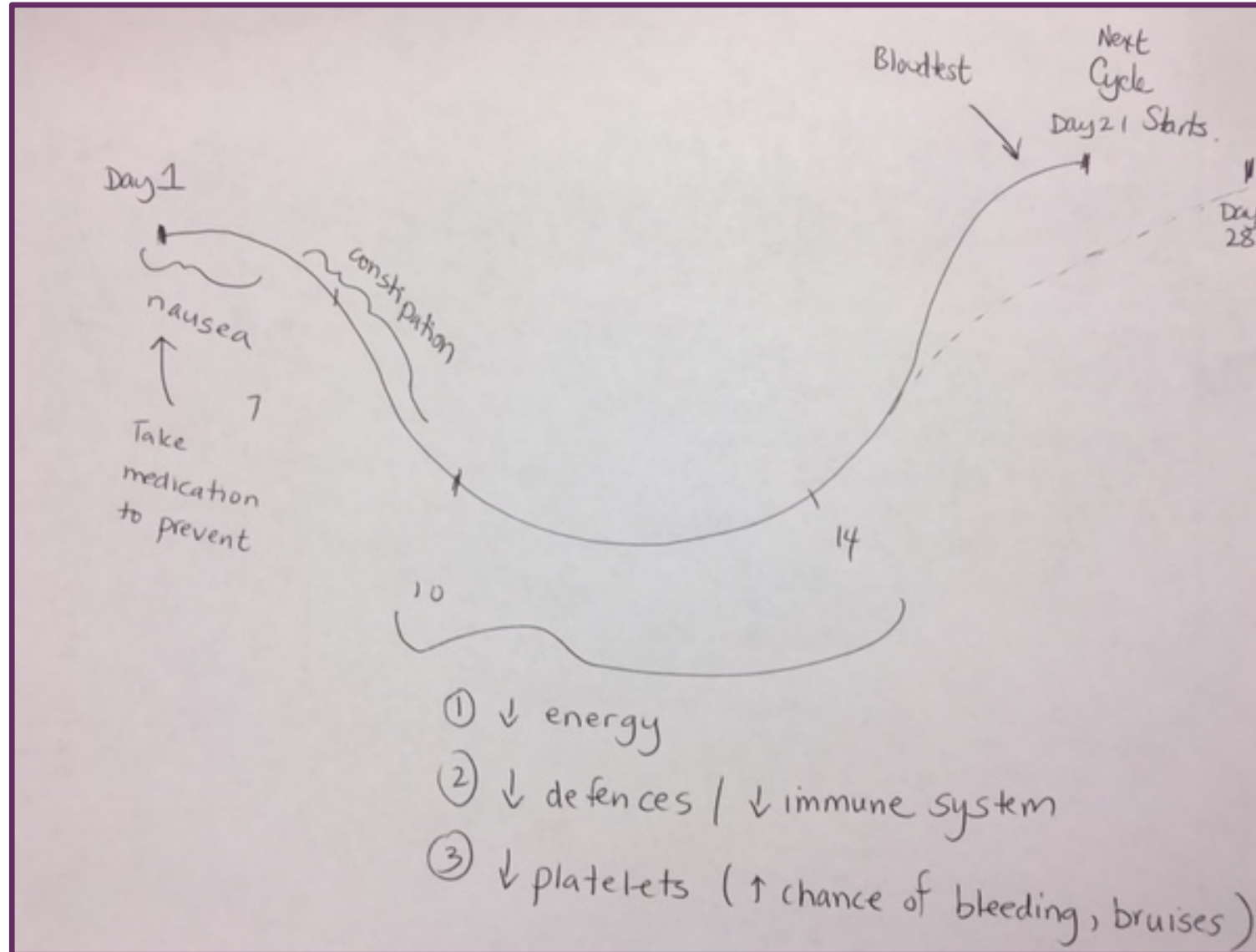
Chemotherapy and Fast Growing Cells



Chemotherapy and Fast Growing Cells



What a chemotherapy cycle may look like



Risk of infection - watch for fever



- Neutrophils are infection fighting cells
- A temperature over 38°C means there is something happening
- Important to go to hospital right away to investigate
- Less neutrophils are around to fight what is causing the fever

Risk of infection - watch for fever

- Important to stay well
- Hand washing
- Avoid sick people
- Flu vaccine for caregivers - and yourself if appropriate



Chemotherapy effects on the body

Then we look at the specific medications chosen to discuss other possible side effects and what to do about them:

Vincristine

- constipation
- peripheral neuropathy

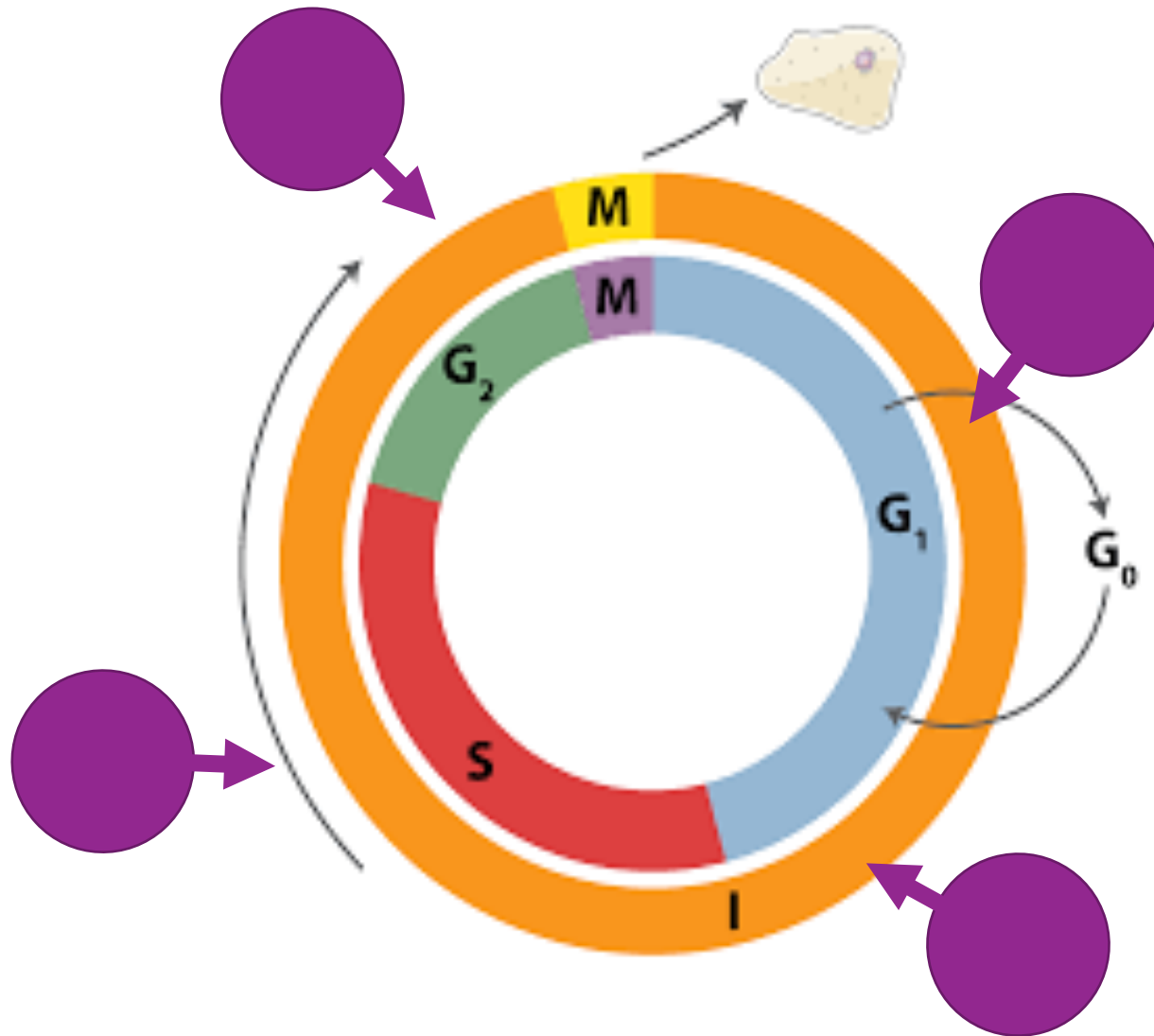
Cyclophosphamide

- bladder irritation
- taste disturbances

Doxorubicin

- heart muscle strength
- red urine

Combination allows for multiple areas of target



G1 - Growth

S - DNA synthesis

G2 - Growth and
preparation for
mitosis

M - Mitosis
(cell division)

Combination allows for multiple areas of target

Alkylating agents	Anti-metabolites	Anti-microtubules	Topoisomerase inhibitors
Cyclophosphamide/ Ifosfamide	Cytarabine	Vincristine	Doxorubicin
Chlorambucil	Fludarabine	Vinblastine	Etoposide
Cisplatin/Carboplatin	Methotrexate		Mitoxantrone
Bendamustine	Gemcitabine		
Melphalan/ Busulfan	Cladribine		
Dacarbazine/ Procarbazine			

ABVD

GDP

FCR

ICE

B-R

CEOP

CHOP-R

BEAM

HyperCVAD-R

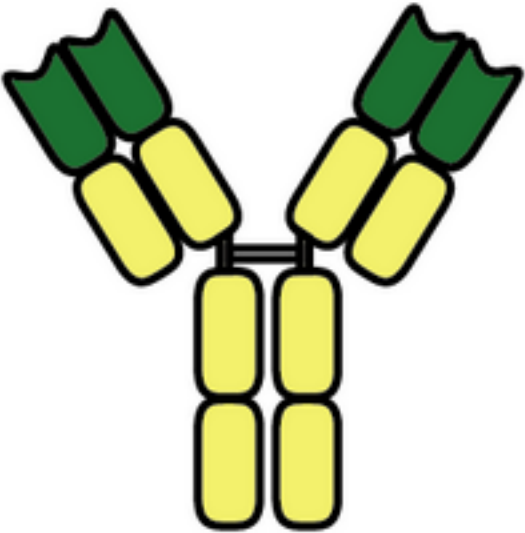
CVP-R

Beyond chemotherapy

Targeted therapy and immunotherapy

Targeted therapy – Anticancer therapy

Chimeric mAb

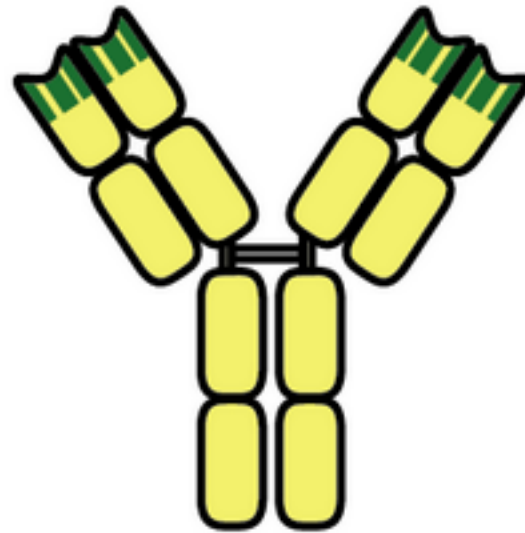


-ximab

Rituximab

CD20

Humanized mAb



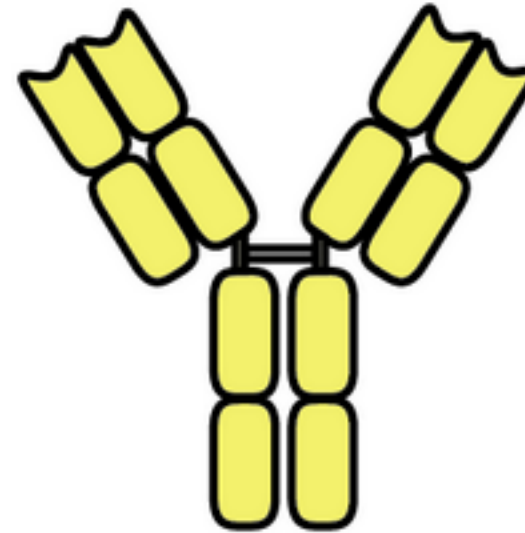
-zumab

Alemtuzumab
Obinutuzumab

CD20

CD52

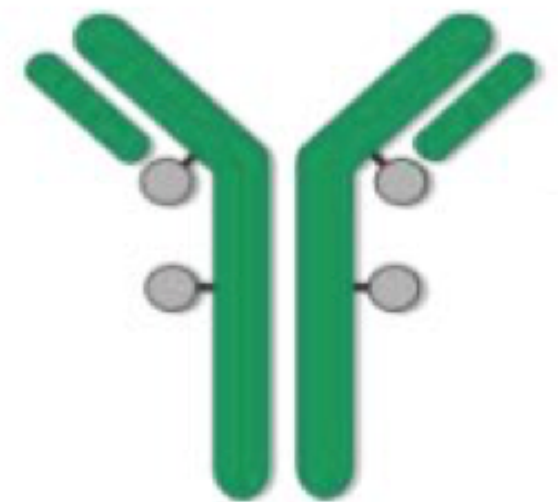
Human mAb



-mumab

Ofatumumab

CD20



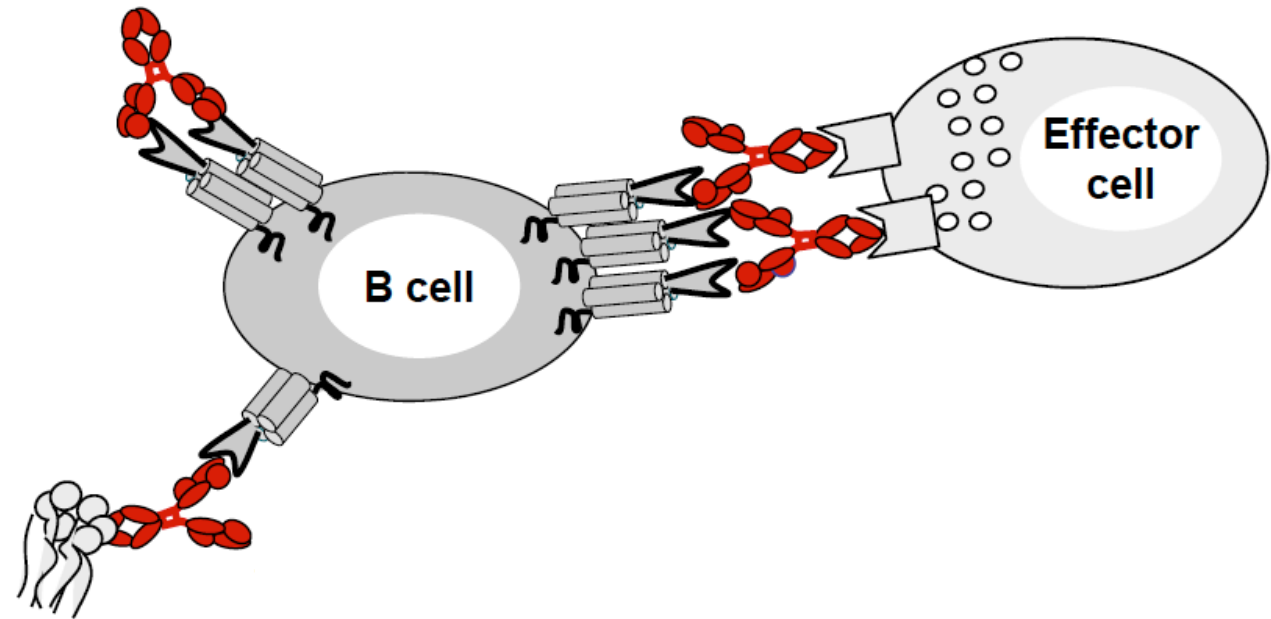
Brentuximab
vedotin:

Antibody +
chemotherapy

CD30

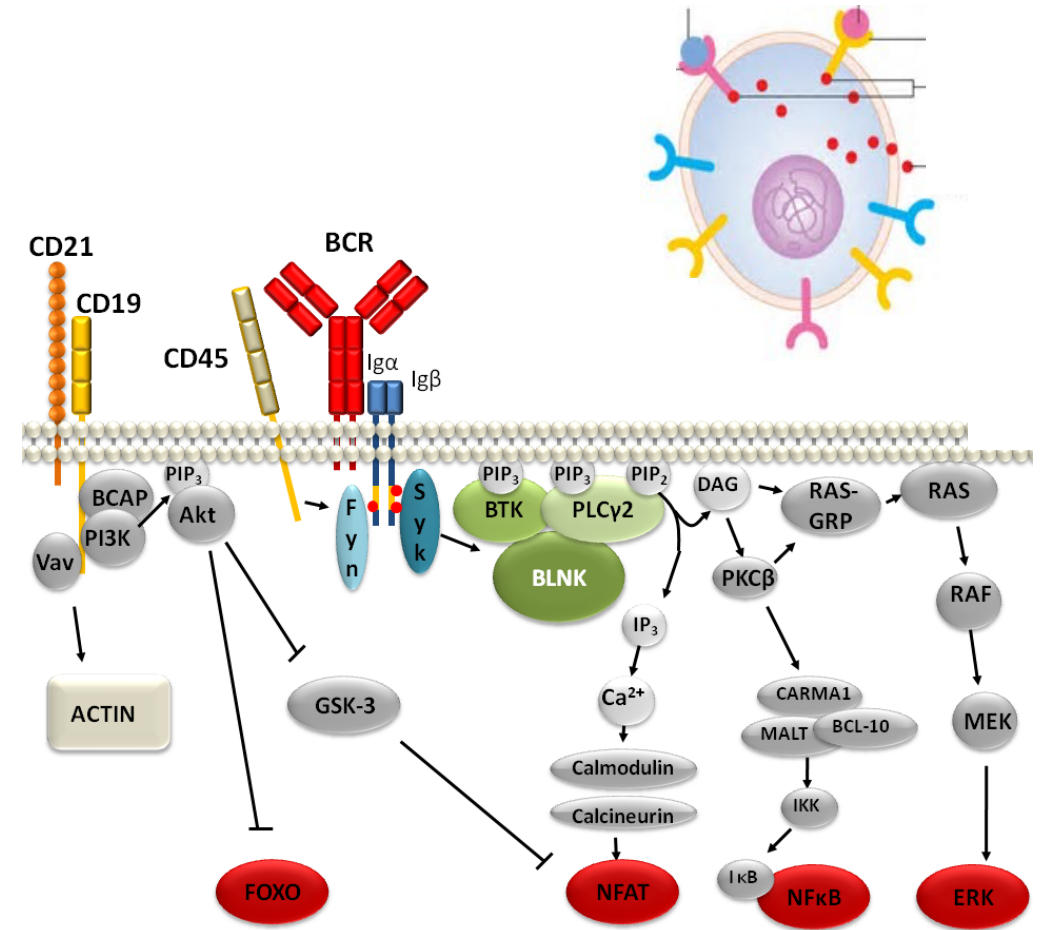
Monoclonal Antibodies – Targeted therapy

- Looking for protein markers e.g. CD20 on the cell surface to bind
- Most side effects are during and from the infusion itself
 - Chills, fever, shakes, nausea, low blood pressure
- Can see some neutropenia so important to be well when receiving therapy

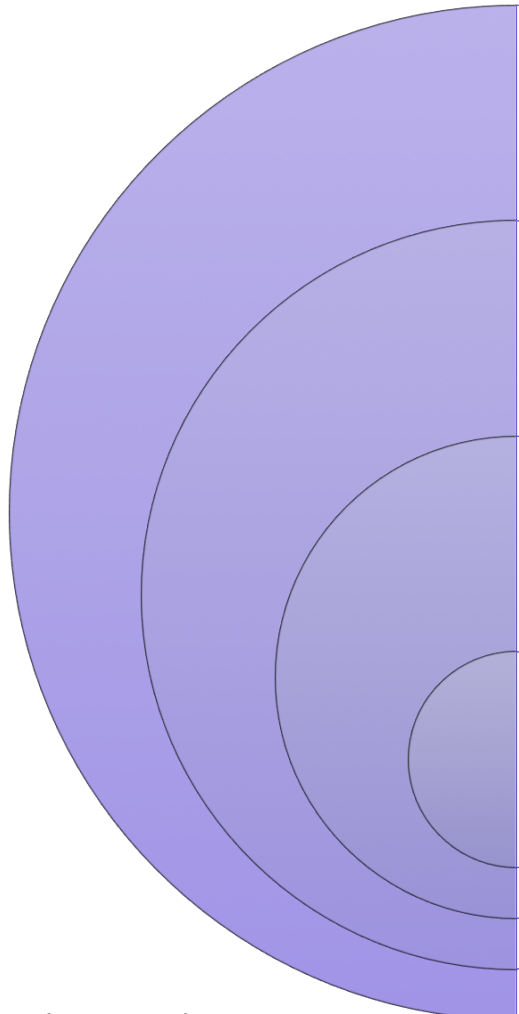


Small molecule inhibitors – Targeted therapy

- Come in pill form; taken every day
- Targeting pathways inside the cell
- Affect the signaling within the cancer cell for cell growth and cell survival

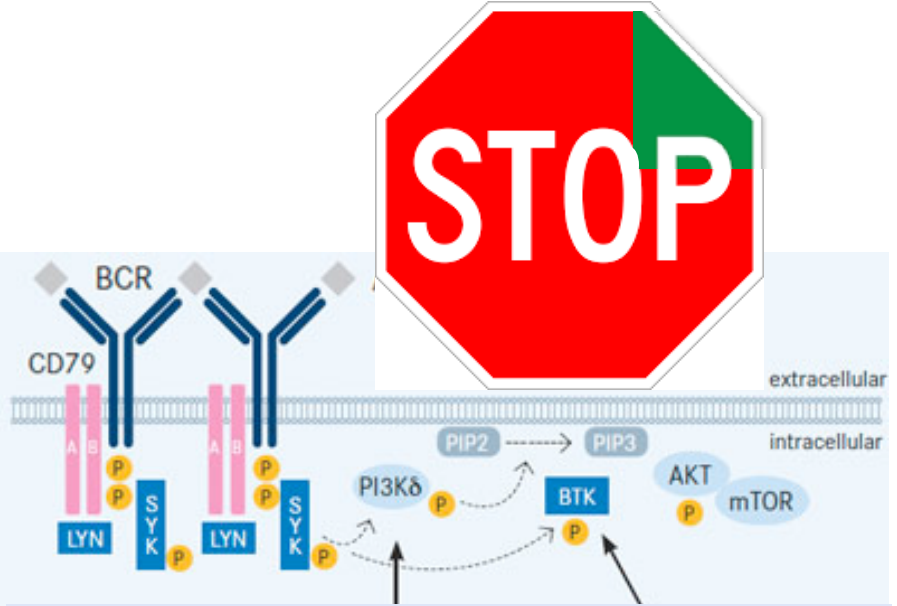


Anti-cancer Targeted therapy

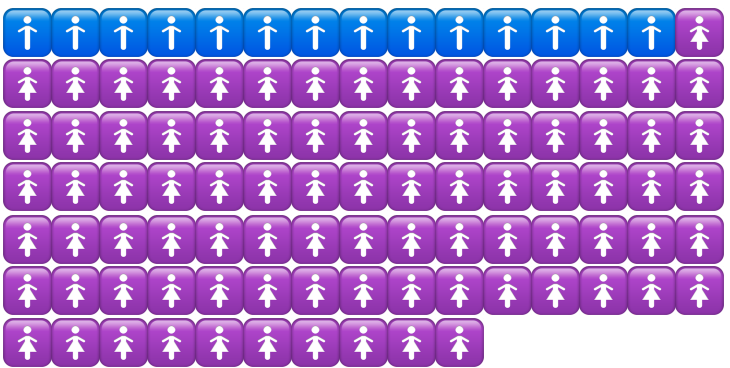


Ibrutinib BTK inhibitor	<ul style="list-style-type: none">• More common: diarrhea, fatigue, fever, nausea, rash• To watch: bleeding, atrial fibrillation, low neutrophils, low platelets
Idelalisib PI3K delta inhibitor	<ul style="list-style-type: none">• More common: fever, fatigue, nausea, diarrhea• To watch: late diarrhea, elevated liver enzymes, pneumonitis, low neutrophils, low platelets
Venetoclax BCL-2 inhibitor	<ul style="list-style-type: none">• More common: nausea/vomiting, diarrhea, headache• To watch: tumour lysis syndrome, low neutrophils, low platelets
Lenalidomide Immunomodulator	<ul style="list-style-type: none">• Investigated in lymphoma: diarrhea, fatigue• To watch: low neutrophils, low platelets, risk of blood clots

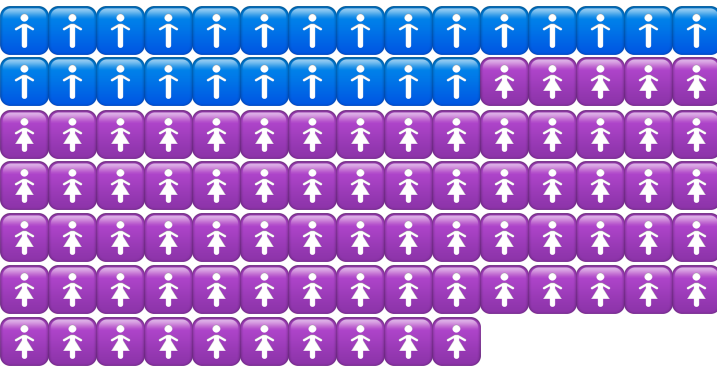
Taking your medication matters



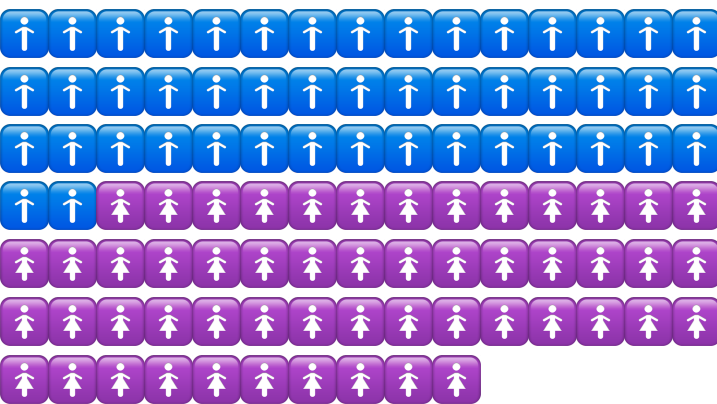
Three pills a day:



Two pills a day:



1 pill a day:



Taking your medication matters!

Guides for patients

How to Manage Your Symptoms





Immunotherapy:

Activating the
immune system
to fight cancer

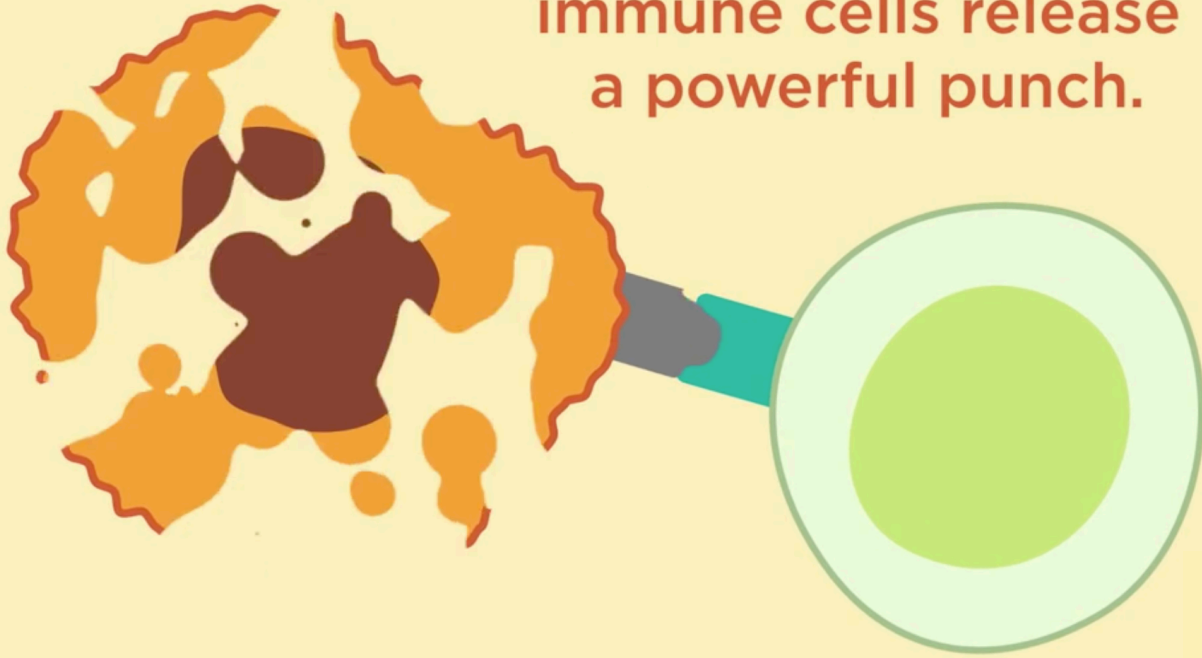


Immunotherapy – activating the immune system to fight the cancer



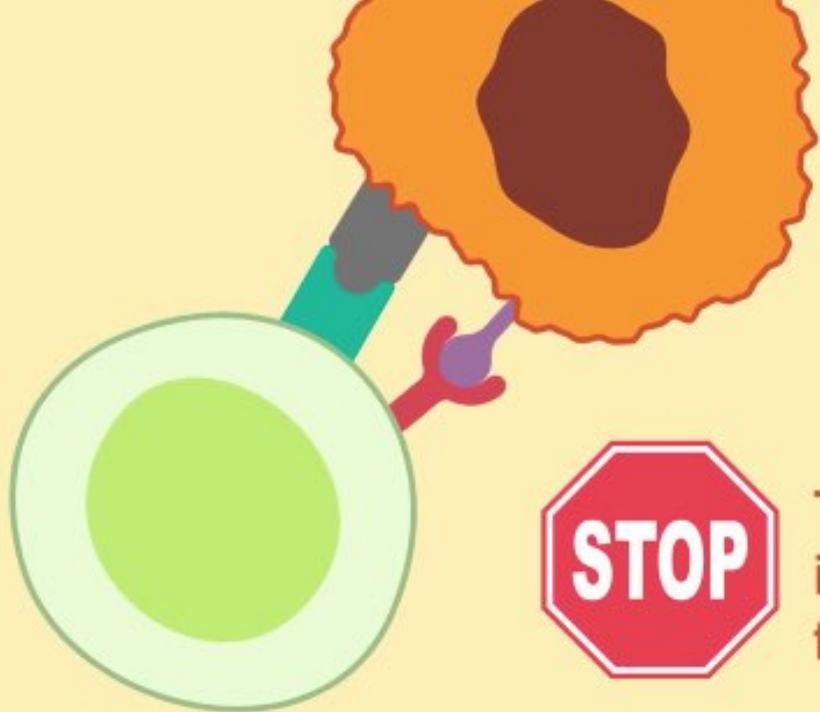
For video on how immunotherapy works:
<https://www.mskcc.org/videos/immunotherapy-how-it-works>

When a cancer cell is discovered,
immune cells release
a powerful punch.



One way they evade attack is by
stepping on an immune cell brake,
called a checkpoint.





This prevents the immune system from doing its job.



Immunotherapy drugs release this brake



Immunotherapy

Checkpoint Inhibitors:

Used already in solid tumours e.g. certain melanomas, renal, lung.

Nivolumab: evaluated for use in relapsed Hodgkin Lymphoma after auto stem cell transplant

SEP
19
2017

Hodgkin Lymphoma Patient Survey: Experience with Nivolumab (Opdivo)

Hodgkin Lymphoma Patient Survey: Experience with Nivolumab (Opdivo)

If you have or had Hodgkin lymphoma AND took the drug nivolumab (Opdivo), you can help by completing our survey.

Lymphoma Canada is preparing a submission for the pan-Canadian Oncology Drug Review (pCODR) for:

NIVOLUMAB (OPDIVO) FOR THE TREATMENT OF HODGKIN LYMPHOMA AFTER FAILURE OF AUTOLOGOUS STEM CELL TRANSPLANT (ASCT).

The survey provides us with the patient input required for the submission. pCODR uses this information to help them make recommendations to the provinces and territories regarding funding for new cancer treatments.

Do not need to live in Canada to complete this survey.

BY COMPLETING THIS SURVEY, YOU ARE PART OF THE PROCESS THAT MAY HELP PATIENTS GAIN ACCESS TO NIVOLUMAB (OPDIVO) IN CANADA.

The survey is open until midnight Pacific Time on Friday, October 6th, and should only take 10 minutes to complete.

Click the link below.

Share your experience with nivolumab (Opdivo)

Immunotherapy

Used already in solid tumours: e.g. certain melanomas, renal, lung.

Pembrolizumab: Sept 2017: Health Canada NOCc in relapsed Hodgkin Lymphoma after brentuximab use & +/- auto SCT.

JAN
24
2017

Pembrolizumab may help those with relapsed NK-cell and T-cell lymphomas

A [small study](#) suggests that pembrolizumab may provide lasting remissions in some patients with NK-cell or T-cell lymphomas whose previous treatments failed.

Pembrolizumab is a type of immunotherapy. This type of treatment stimulates the body's immune system to fight cancer cells. Pembrolizumab targets and blocks a protein called PD-1 on the surface of certain immune cells called T-cells. Blocking PD-1 triggers the T-cells to find and kill cancer cells.

The study indicates that the treatment could be an option for patients who have failed to respond to treatment. The report was published in the journal *Blood*. Those with NK or T-cell lymphomas who fail to respond to currently available therapies have had no other treatments to turn to. The study investigators gave seven men with NK- and T-cell lymphomas, all of whom had failed to respond to previous treatments, the checkpoint inhibitor pembrolizumab.

Two patients responded to the pembrolizumab treatment. Two patients achieved a complete remission, and three more had no signs of cancer when examined by imaging and clinical methods. One patient had a partial response.

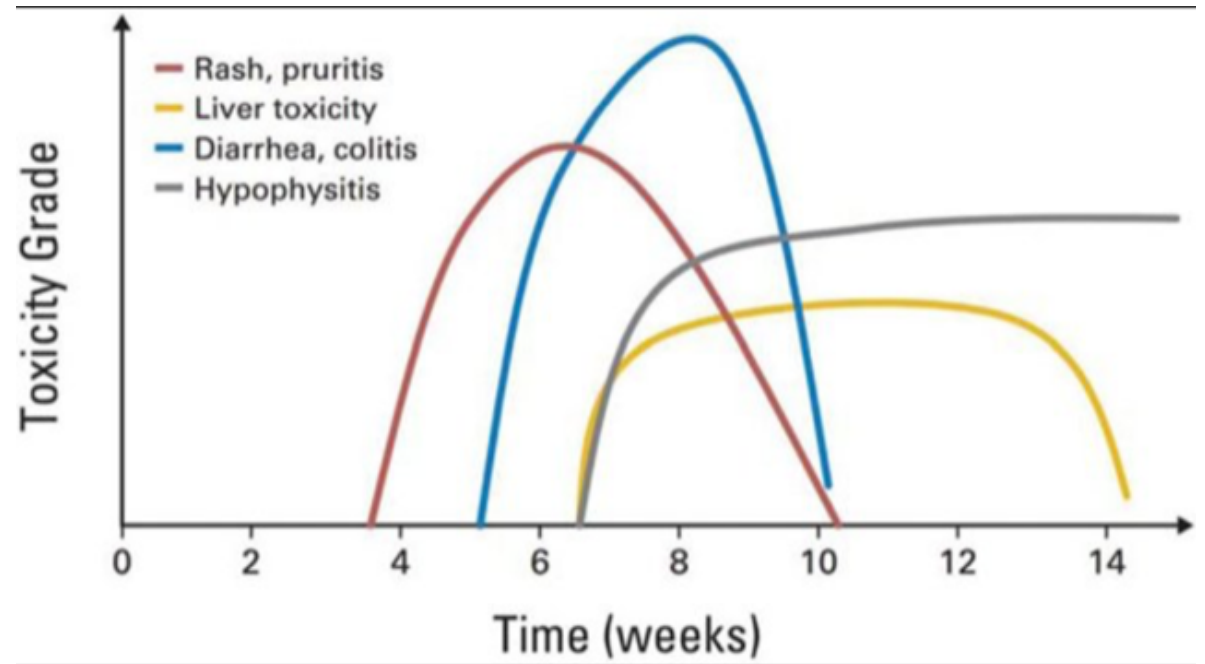
At the time of six months, five of the patients were still in complete remission and one patient had a bleeding stomach ulcer.

*The trial was a moderately severe rash, caused by an immune reaction. The rash
It was managed with corticosteroids and the patient continued

Immunotherapy

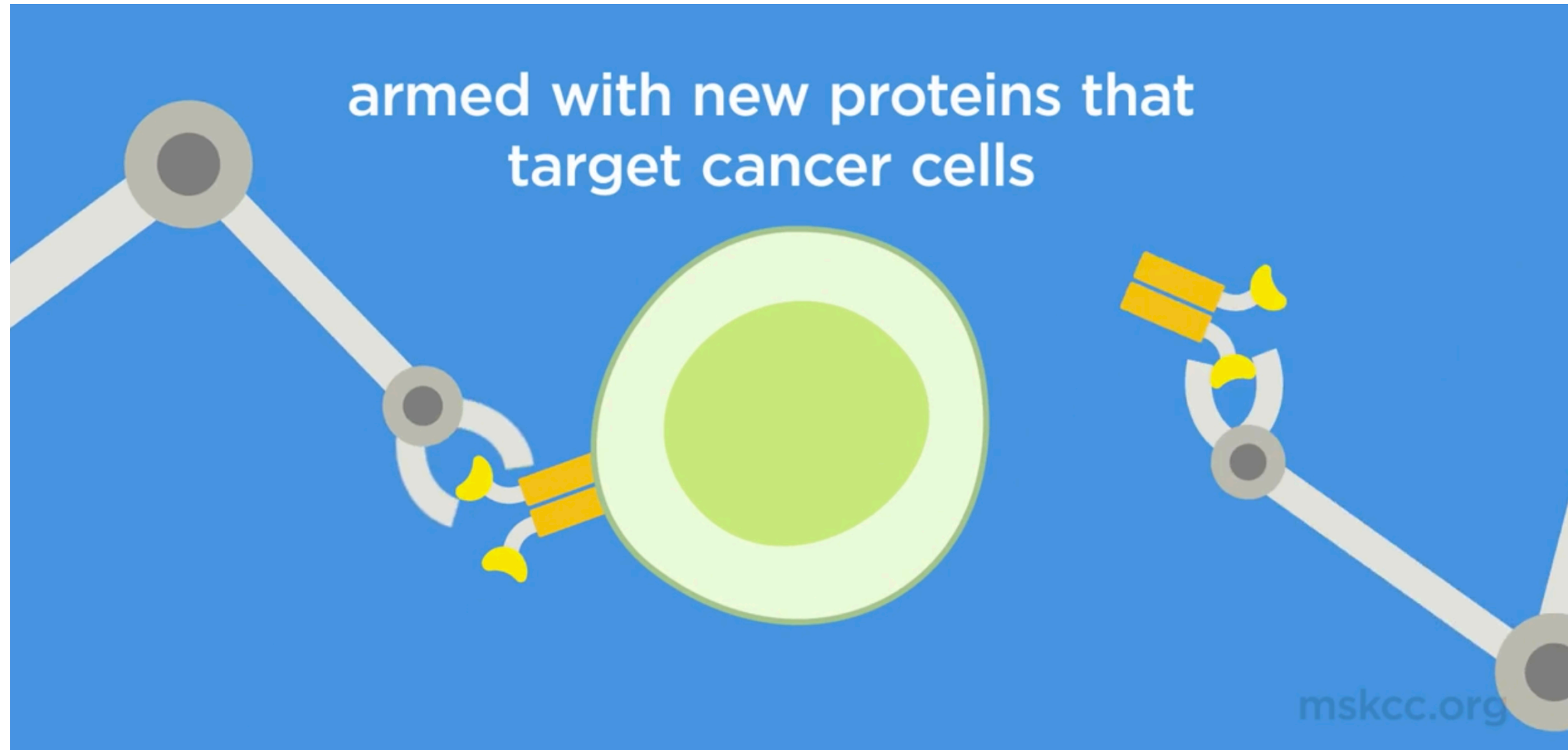
- different mechanism
- different side effects

- Side effects stem from an activated immune system (think autoimmune disorders, inflammation)
- Steroids or breaks from therapy are used to minimize these reactions.



Weber J, et al: *J Clin Oncol* 30(21), 2012:2691-2697.

Immunotherapy continues





Life Beyond Lymphoma

Living during the off-treatment phase of life

Late effects of treatment can make this period challenging

Late Effects of Treatment

Fatigue

Nerve Damage

Reduced Glandular Function

Memory Problems or Confusion

Infections

Heart Disease and Stroke

Lung Scarring

Second cancers

Eye Problems

Bone Complications

Sexual Issues

- Female Sexual Issues
- Male Sexual Issues

Reproductive Issues

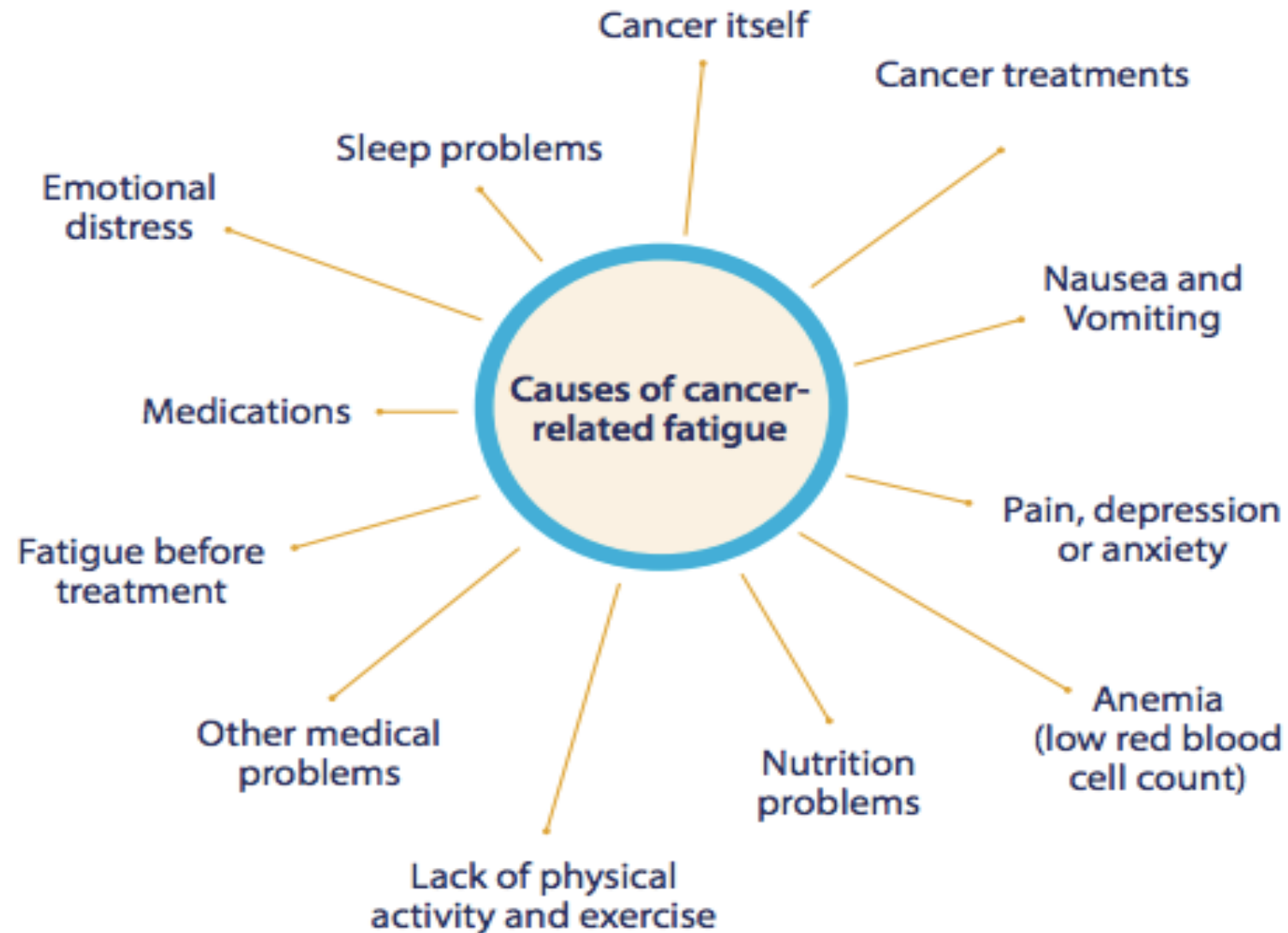
- Female Fertility Issues
- Male Fertility Issues



Cancer related Fatigue

- The most common symptom
- Cancer related fatigue goes beyond needing a rest
- Can be physical, emotional and/or cognitive tiredness or exhaustion
- Doesn't result from recent activity or exertion
- Interferes with usual functioning
- Not relieved by rest or sleep

Causes of Cancer related Fatigue



Monitoring Fatigue

- Monitor each day using a treatment log or diary to help identify peak energy periods
- Record daily activities, time spent doing each activity, and fatigue level
- Note which activities were most tiring/difficult at the end of the day
- Plan for how these activities could be changed to make them more manageable



Exercise for people with cancer: a clinical practice guideline

R. Segal MD,* C. Zwaal MSc,[†] E. Green RN,[‡] J.R. Tomasone PhD,[§] A. Loblaw MD MSc,^{||} T. Petrella MD,[#]
and the Exercise for People with Cancer Guideline Development Group

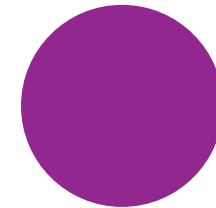
Guideline Recommendations

- People with cancer can safely engage in moderate amounts of exercise while on active treatment or post completion of therapy
- Moderate amounts of exercise are recommended to improve quality of life (QOL) as well as the muscular and aerobic fitness of people living with cancer
- Clinicians should advise their patients to engage in exercise (as per recommendations by the Canadian Society of Exercise Physiology and American College of Sports Medicine)
 - 150 min of moderate-intensity aerobic exercise spread over three to five days and resistance training at least two days per week
 - Resistance sessions should involve major muscle groups two to three days per week
 - Each session should include a warm up and cool down

- Avoid inactivity, as sedentary behavior may be detrimental
- Some exercise is better than none
- Have a pre-exercise assessment before starting an exercise to evaluate for any effects of disease, treatments and /or co-morbidities.
- Start easy and progress slowly
- Exercise must be individualized based on function, side effects, and preferences



General Exercise Principles

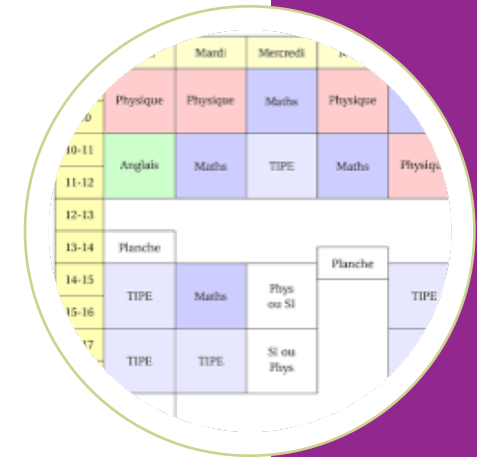


4 P's to Manage Energy

- 1 Plan**
- 2 Prioritize**
- 3 Pace**
- 4 Position**

PLAN AHEAD

- Plan your activities during peak energy times
- Plan for rest periods before and after activities
- Plan activities or outings where you can sit down to rest
- Do one enjoyable activity everyday
- Do not do all of your difficult or tiring tasks on the same day
- Delegate activities that are tiring or difficult to do - housework, shopping, pet care
- Arrange your home so that most activities can be done on one floor - keep supplies within reach



	Mardi	Mercredi	Jeudi	Vendredi	Samedi	Dimanche
0-9	Physique	Physique	Maths	Physique		
10-11	Anglais	Maths	TIPE	Maths	Physique	
11-12						
12-13						
13-14	Planche			Planche		
14-15	TIPE	Maths	Phys ou SI		TIPE	
15-16						
17-18	TIPE	TIPE	SI ou Phys			

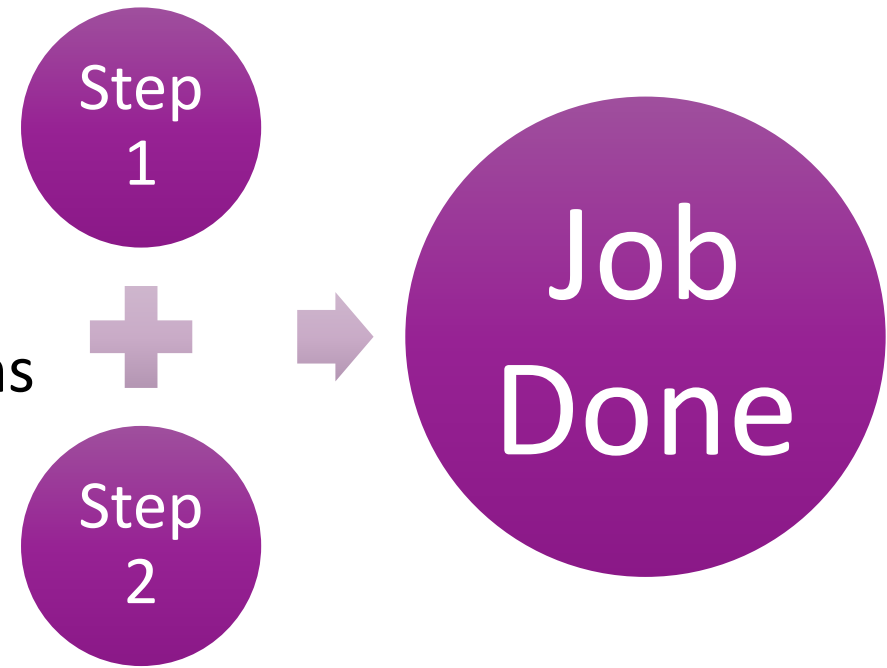
PRIORITIZE

- Decide which activities are most important to you
- Save your energy for things you enjoy most - Energy Bank
- Postpone less important activities or ask others to do them for you
- Eliminate activities that you do not have to do



PACE

- Do one activity at a time
- Stop and rest before you get tired, even if it means stopping in the middle of a task
- Rest between activities
- Break tasks down into smaller steps



POSITION

- If possible, sit when doing things like folding laundry or preparing food
- Use walking aids - Hand rails, grab bars, a cane, or a walker
- Avoid heavy lifting



Fatigue and Sleep

Sleep habits can affect fatigue

- Go to bed and get up at the same time everyday
- Exercise regularly, even if it's just a short walk
- Limit naps to less than 1 hour
- Avoid long or late afternoon naps
- Avoid drinking alcohol or caffeine in the late afternoon or evening
- Limit activities and physical activity in the evening

Mike Evans – 10 min video on cancer related fatigue on YouTube





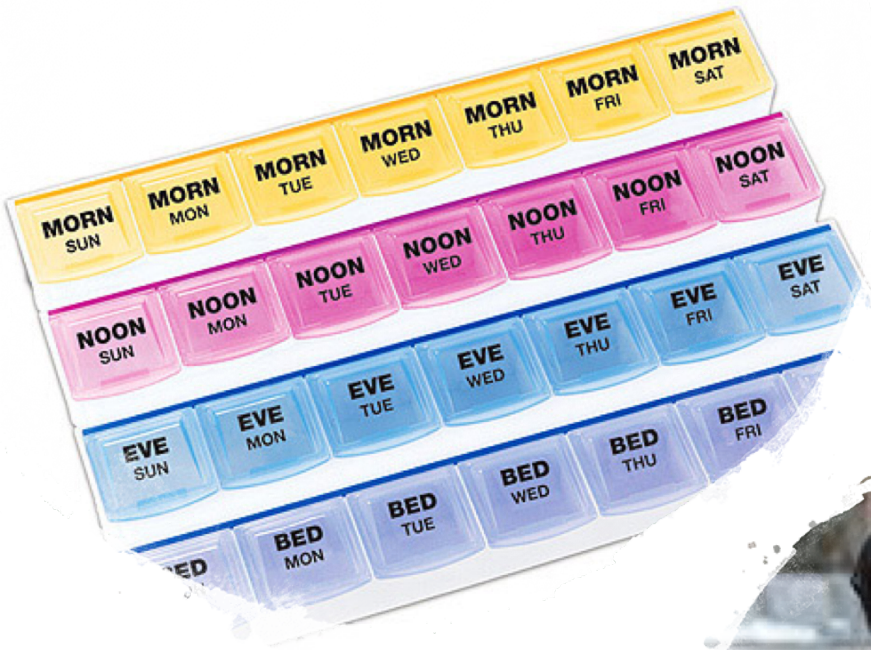
The best exercise is the
one you are going to do

Chemo Brain



Life Beyond
Lymphoma

- It is a real thing
- Difficulty concentrating, multi-tasking, remembering details, train of thought...
- For some, it gets better as time goes on; for others it does not go back to pre-treatment ways



Cancer related brain fog

- Use memory tools
- Reduce mental fatigue



Cancer related brain fog

- Reorganize your environment
- Train your brain
- Strive for healthy eating, healthy lifestyle



Where
to go
from here?



Life Beyond
Lymphoma

Keep track of symptoms that:
don't go away
get worse over time
have no reason for happening

The new normal

Wish list

- ✓ Stop smoking – smoking cessation program at TOH
- ✓ Be sun smart – sunscreen
- ✓ Get routine cancer screening; breast, cervical, colorectal
- ✓ Reduce or eliminate alcohol
- ✓ Add physical activity to your life



The new normal Wish list

- ✓ Live life
- ✓ See friends
- ✓ See family
- ✓ Make time for you
- ✓ Celebrate milestones





Tips to Share?

Anything you found helpful to tolerate chemotherapy?

Any tips you wish to pass onto others starting their life with lymphoma/leukemia?

“Suck on lemon candies before eating – hides metal taste”

“Write things down you don’t want to forget – takes the pressure off”

“I take my neighbor’s dog for a walk. Gets me moving and it’s a habit for both of us now”

“I take dexamethasone at bedtime with a snack; I can get some sleep before the jolt kicks in”

“ ”

“I had something ready for the day after steroids. That was my down day and I needed a pick me up”



Thank-you for
coming today

