



Imics

Loddon Mallee
Integrated Cancer Service

Four regional sites partner to implement an Immunotherapy alert card

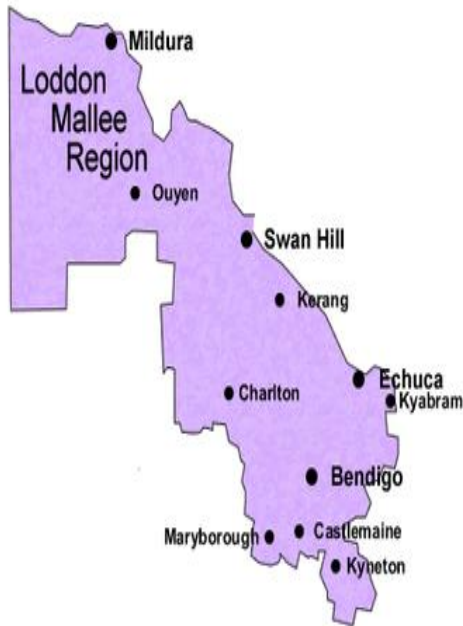
Sue Bartlett, Sam Harris, Justin Hargreaves,
Melissa Loorham & Ilana Solo

Overview

- LMICS Project – Rollout of Patient Alert Card and Patient Pathway
- Results from the ED & GP Education over the four sites
- Outcomes following project completion



Loddon Mallee Region (LMR)



- The Loddon Mallee region (LMR) is the region in the north west region of Victoria. It is covered by 10 Local Government Areas (LGAs).
- Approximately 328,000 people live in the LMR. This means that approximately 5% of Victoria's population resides in over a quarter of the state's area.
- The LMR population is concentrated around the south of the region in Bendigo and the Macedon Ranges.
- People with cancer and their carers may utilise urgent care, acute beds, and community-based programs in the smaller services and specialist cancer services in the larger services.



Background to the Project

- Immunotherapy was first used in Australia in clinical trials for metastatic melanoma.
- The results from the clinical trials were “life changing” for patients with Stage 4 disease.
- A large number of patients went from being told “get your affairs in order” to now living with no evidence of cancer.
- More clinical trials opened for other tumour streams including NSCLC, lymphoma, leukaemia, kidney, head and neck and bladder cancer.
- Successful trial results enabled access to these drugs on the PBS.
- An increased population of oncology patients are now having immunotherapy as part of their standard treatment.
- In the Loddon Mallee region its estimated approximately 2,500 people may have access to immunotherapy as part of their cancer treatment

Background to the Project

Funding Grant LMICS – 2017/2018

“To improve symptom management for patients currently on immunotherapy living in the Loddon Mallee region”.

- It was identified that patients living in the Loddon Mallee have their treatment in Bendigo, Ballarat or Melbourne and then when home will present to their local GP or ED.
- When asked many staff had heard about immunotherapy but didn't know much about it.
- Staff were not aware that immunotherapy was different to chemotherapy.
- It was identified that symptoms patients were experiencing were often managed the same as if the patient was having chemotherapy

Project Working Group

- Dr Sam Harris – Medical Oncologist Bendigo Cancer Centre
- Justin Hargreaves – Medical Oncology Nurse Practitioner, Bendigo Cancer Centre
- Donna Milne – Melanoma Nurse Coordinator, Peter MacCallum Cancer Centre
- Gillian Mays & Susan Findlay – Chemotherapy Day Unit Swan Hill District Health
- Cindy Boyd – Chemotherapy Day Unit – Kerang District Health
- Heather Blazko – Nurse Practitioner Urgent Care – Maryborough District Health Service
- Denise – consumer who lives in the Loddon Mallee had combination immunotherapy as part of a clinical trial and treatment ceased due to severe IRAE's.
- Melissa Loorham - Project Manager Regional Engagement, LMICS
- Ilana Solo – Strategic Manager - LMICS
- Sue Bartlett – Cancer Resource Nurse – Maryborough District Health Service

Immunotherapy Project



- The project is over 4 sites including Bendigo, Kerang, Maryborough & Swan Hill
- Develop a patient alert card specific to the Loddon Mallee region.
- Develop a patient pathway
- Provide GP education events collaborating with Murray & West Vic PHN
- Provide nursing staff education at the 4 sites.



Wallet Sized Patient Alert Card

IMMUNOTHERAPY RELATED ADVERSE EVENT (IRAE) ▶ STOP
Category 3

This patient recently received the following IMMUNOTHERAPY DRUGS:

Pembrolizumab Ipilimumab Avelumab Durvalumab
 Atezolizumab Nivolumab Other _____

Patient name: _____
Cancer Type: _____
Medical oncologist: _____

Bendigo Cancer Centre
PH: (03) 5454 8815
AH: On call Oncologist (03) 54546000

Ballarat Health Service
PH: (03) 5320 4389
AH: On call Oncologist (03) 5320 4000

Contact the treating Oncology team if patient presents with any of the following symptoms/ signs

Endocrinopathies <ul style="list-style-type: none">▶ Increased fatigue or mood change/irritability	Neurological <ul style="list-style-type: none">▶ Headaches▶ Drowsiness▶ New deficits
Gastrointestinal <ul style="list-style-type: none">▶ Diarrhoea or increased bowel movements (4+ daily - above baseline)▶ Abdominal pain, cramps or tenderness▶ Blood or mucous in stools	Pulmonary <ul style="list-style-type: none">▶ Dyspnoea▶ Dry cough
Hepatic Toxicity <ul style="list-style-type: none">▶ Deranged liver function tests - ALT/AST > 3 times normal range	Renal toxicity
	Skin <ul style="list-style-type: none">▶ Skin blisters▶ Rash▶ Pruritis

Patient Pathway

HAS YOUR PATIENT RECENTLY RECEIVED IMMUNOTHERAPY? 

IMMUNOTHERAPY DRUGS including the following, but not limited to:

- ▶ Ipilimumab
- ▶ Avelumab
- ▶ Atezolizumab
- ▶ Pembrolizumab
- ▶ Nivolumab
- ▶ Durvalumab


COULD THEY HAVE AN AUTOIMMUNE TOXICITY CONSIDER IMMUNE RELATED ADVERSE EVENTS – IF DISPLAYING THE FOLLOWING SYMPTOMS

<p>Endocrinopathies</p> <ul style="list-style-type: none"> ▶ Increased fatigue or mood change/irritability <p>Gastrointestinal</p> <ul style="list-style-type: none"> ▶ Diarrhoea or increased bowel movements (4+ daily - above baseline) ▶ Abdominal pain, cramp or tenderness ▶ Blood or mucous in stools 	<p>Hepatic toxicity</p> <ul style="list-style-type: none"> ▶ Deranged liver function tests – ALT/AST > 3 times normal range <p>Neurological</p> <ul style="list-style-type: none"> ▶ Headaches ▶ Drowsiness ▶ New deficits 	<p>Pulmonary</p> <ul style="list-style-type: none"> ▶ Dyspnoea ▶ Dry cough <p>Renal Toxicity</p> <p>Skin</p> <ul style="list-style-type: none"> ▶ Skin blisters ▶ Rash ▶ Pruritis
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CONTACT THE TREATING ONCOLOGY DEPARTMENT TO DISCUSS TREATMENT AND REQUIREMENTS FOR TRANSFER TO TREATING TERTIARY CANCER CENTRE

Medical Oncologist Bendigo Cancer Centre
PH: (03) 5454 8815
AH: Oncology service (03) 54546000

Ballarat Health Service
PH: (03) 5320 4389
AH: Oncology service (03) 5320 4800



ADDITIONAL INFORMATION ABOUT IMMUNOTHERAPY

Cancer and the Immune System

The immune system's ability to detect and destroy abnormal cells usually prevents cancers from developing. Some cancer cells develop pathways to evade the immune system.

What is immunotherapy?

Immunotherapy is a type of cancer treatment that focuses on using the body's own immune system to fight cancer. It stimulates the immune system to fight cancer by:

- ▶ Stopping the cancer from blocking the immune system
- ▶ Directly stimulating the immune system.

The most common type of immunotherapy are the Checkpoint inhibitors

On the surface of the T-cells are proteins call "checkpoints" that stop the immune system from attacking cancer cells.

Drugs called checkpoint inhibitors block certain proteins so the T-cells can recognise and destroy cancer cells.

The checkpoint inhibitors that are currently available can block the following proteins

- ▶ Programmed death-1 (PD-1)
- ▶ Programmed death-ligand (PD-L1)
- ▶ Cytotoxic T-lymphocyte-associated antigen (CTLA-4).

Checkpoint inhibitors are now the most widely used form of immunotherapy. The drugs currently used are Pembrolizumab (Keytruda), Nivolumab (Opdivo), Ipilimumab (Yervoy), Atezolizumab (Tecentriq) and Durvalumab (Imfinzi).

The side effects of immunotherapies are completely different to chemotherapy

Checkpoint inhibitors and other immunotherapies are associated with immune related adverse events (IRAE's). These occur when the immune system becomes activated against normal organs causing autoimmune induced inflammation.


Any organ can be affected but most commonly:

- ▶ bowel (colitis) – diarrhoea
- ▶ liver (hepatitis),
- ▶ skin (dermatitis)
- ▶ lungs (pneumonitis – dyspnoea, cough, hypoxia)

When detected early and correctly treated, IRAE's are reversible, however, they can become severe and life-threatening if inappropriately treated or underestimated. Treatment is often with high dose corticosteroids and requires specialist consultation

Patients previously treated for autoimmune related adverse events often require long weaning courses of corticosteroids, which if ceased too soon can lead to rebound toxicity.

For more information visit:
www.cancercouncil.com.au/wp-content/uploads/2017/06/UC-Pub-Immunotherapy-CAN6479-lo-res_June-2017.pdf

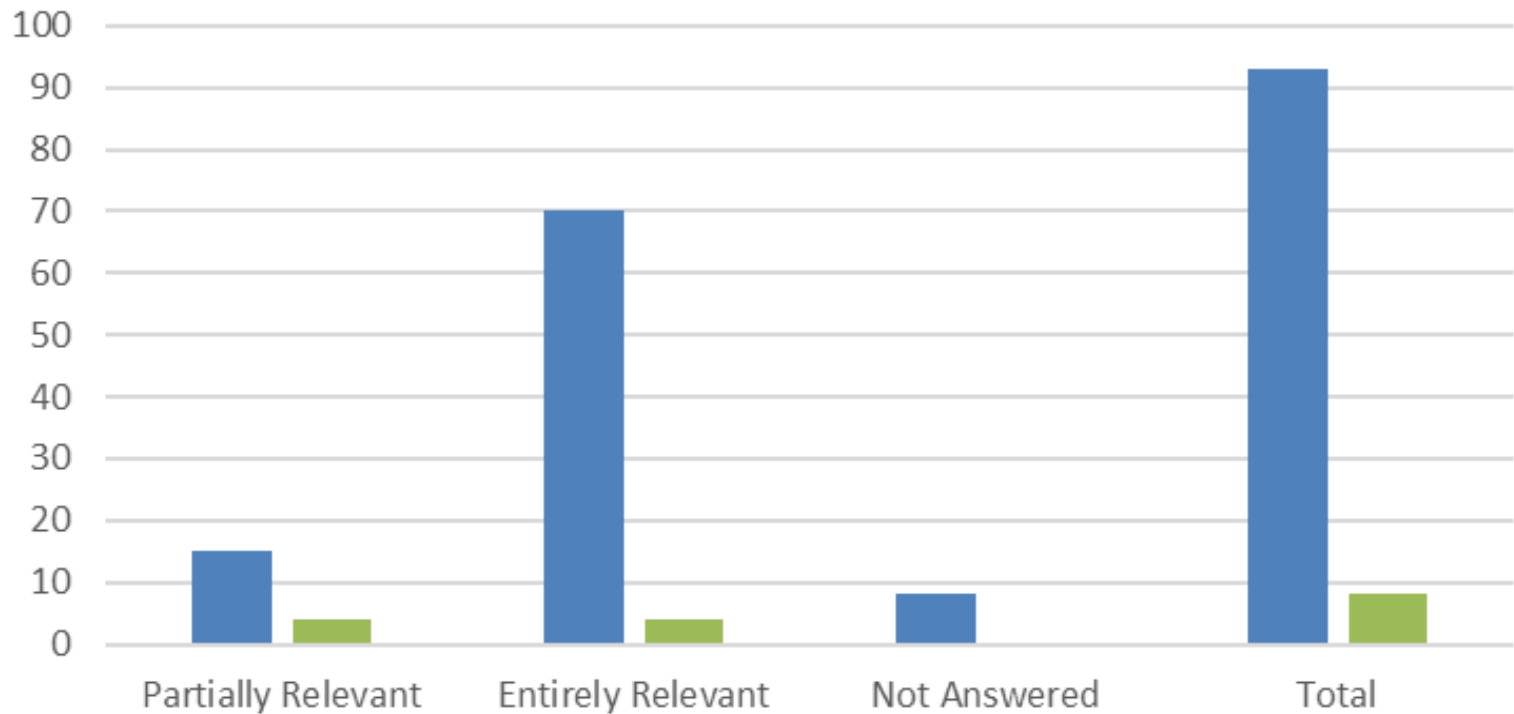


Patient Pathway designed by Justin Hargreaves & the LMICS immunotherapy project committee dated August 2018 (due for review in 12 months)

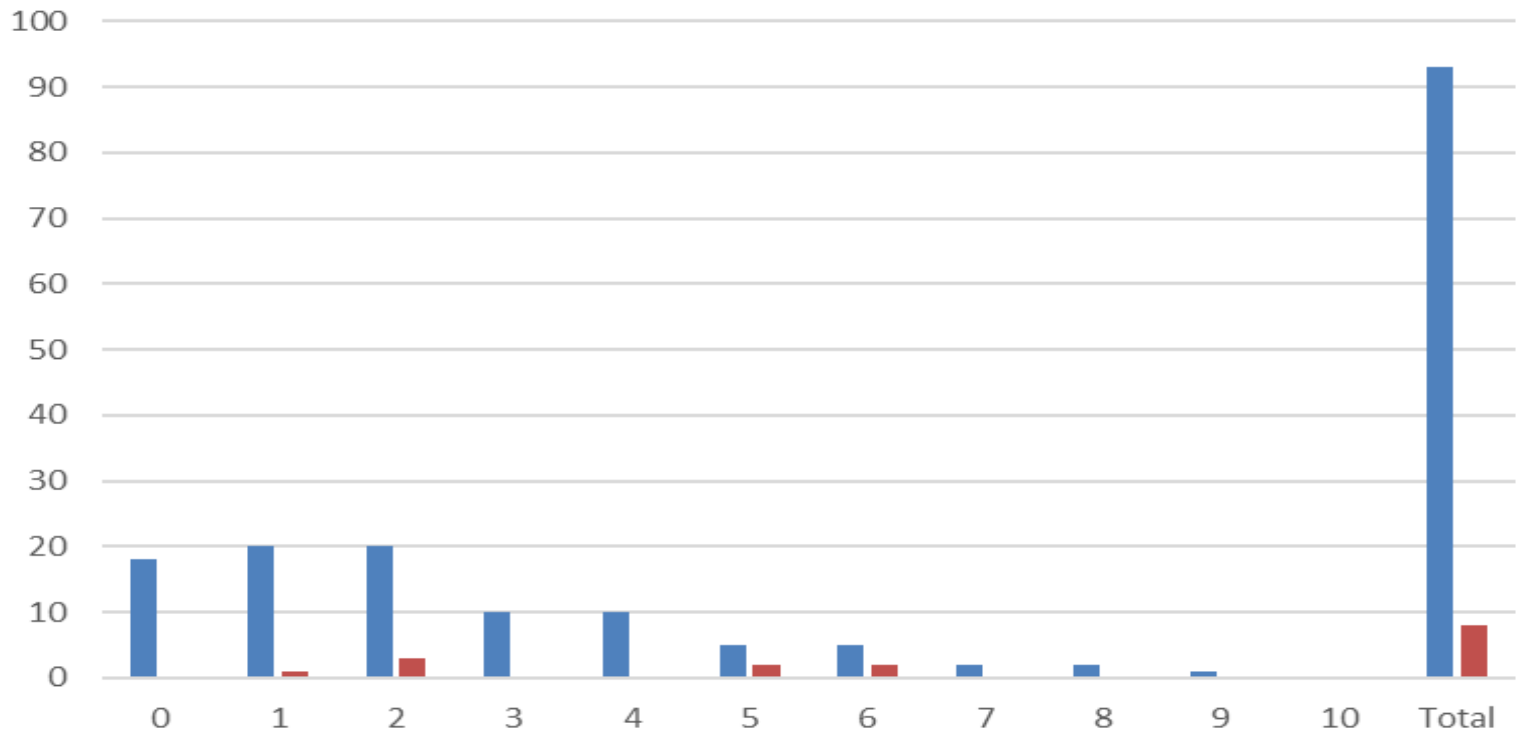
ED Education Results

- The project lead completed ED education to nursing staff over the four sites. There was also one session provided at Bendigo Health to registrar's and residents on rotation in ED and 1 session to a GP clinic in Maryborough.
- Overall over the four sites 93 nursing staff attended over 22 sessions with 8 medical staff attended the one session at Bendigo Health. Out of the 106 staff that attended 101 evaluations were completed.

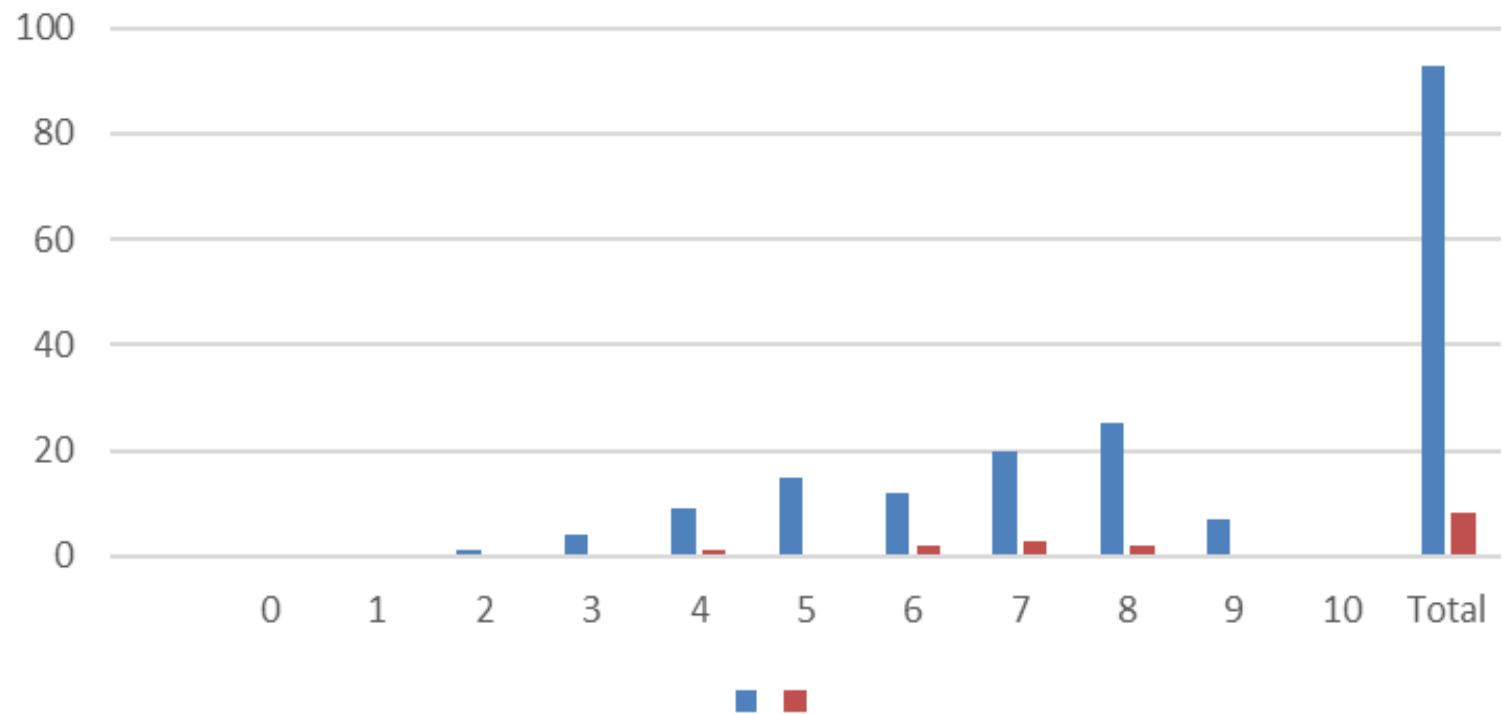
Please rate to what degree this session was relevant to your practise



Please rate the level of knowledge you had about immunotherapy before this session



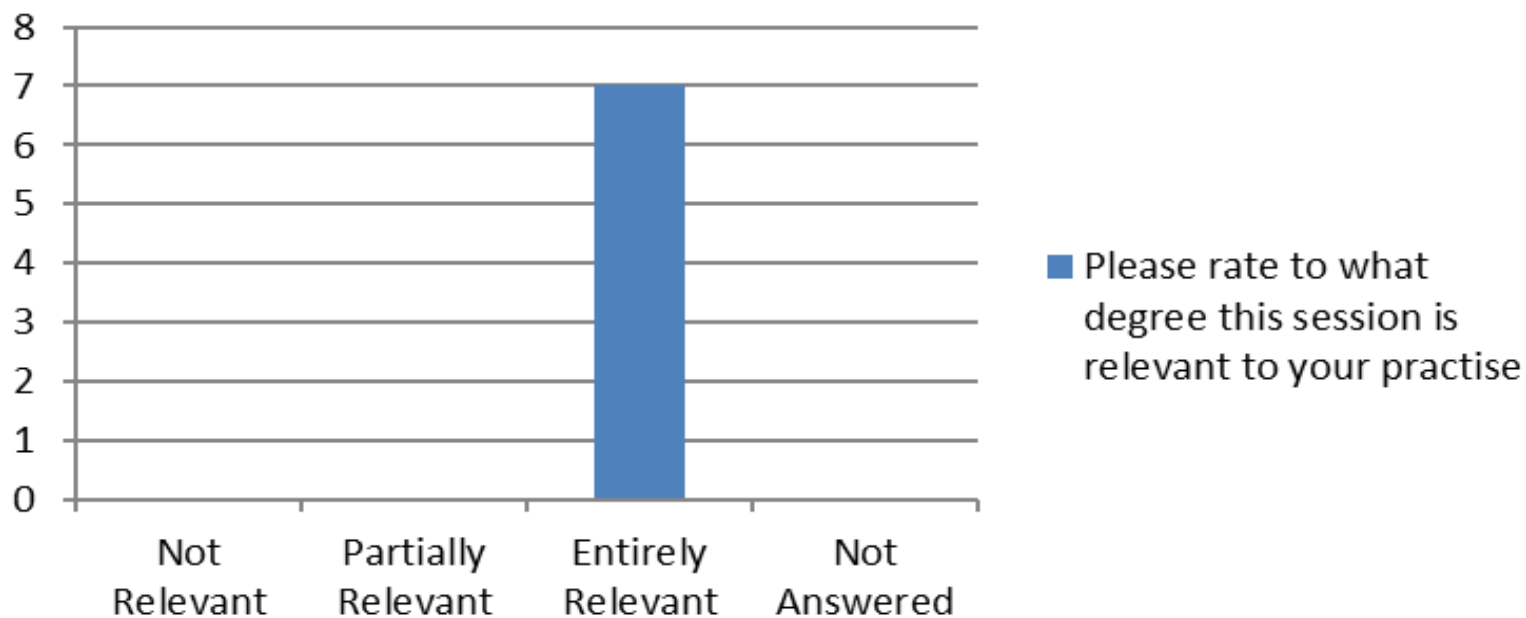
Please rate the level of knowledge you had about immunotherapy after this session



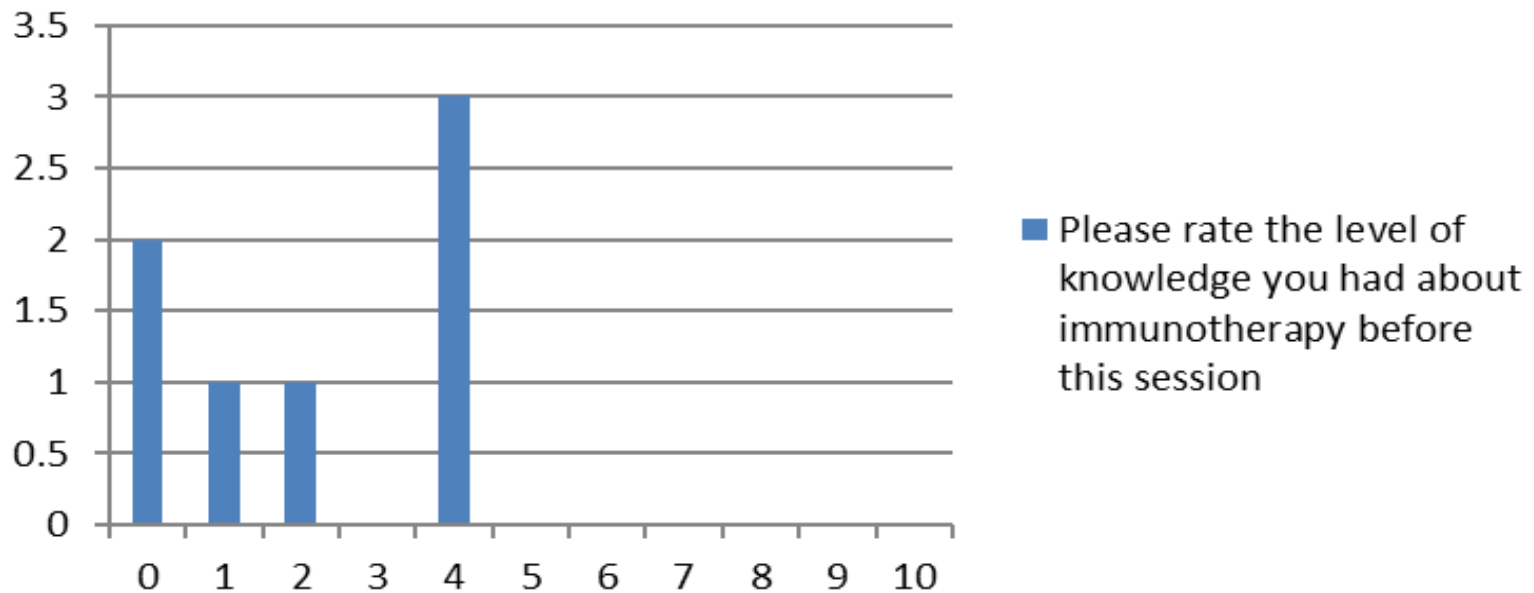
GP Clinic Maryborough

- We were also invited to attend one of the clinics in Maryborough to provide the same education to the practise nurses and administration staff.
- There were 7 staff in attendance that I have also included in the total results but the following slides also include the evaluations of their feedback forms.

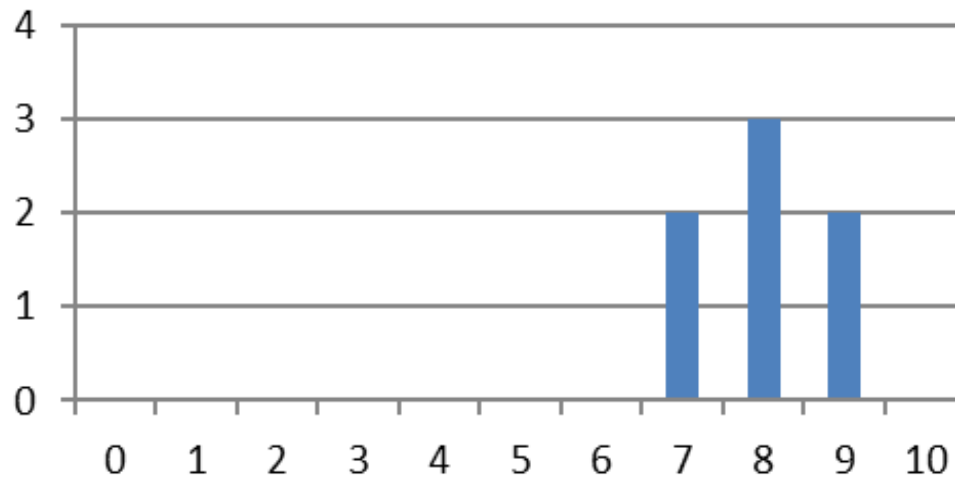
Please rate to what degree this session is relevant to your practise



Please rate the level of knowledge you had about immunotherapy before this session



**Please rate the level of knowledge
you feel you have about
immunotherapy since attending this
session**



■ Please rate the level of knowledge you feel you have about immunotherapy since attending this session

Which aspects of the session most useful?

- Difference between chemotherapy & Immunotherapy
- Adverse events and how to manage these
- eviQ
- Explanations of the immunotherapy drugs and side effects
- Symptoms patients present with and what to look out for
- Different types of immunotherapy
- Everything know very little about immunotherapy

GP Education

- As part of the project we collaborated with Murray & West Vic PHN due to separate boundaries for all the 4 sites.
- Only 1 GP education was held in Bendigo, as one had been held in the previous year in Swan Hill, and there was a GP event held in Cohuna that GP's in Kerang attended.
- Unfortunately due to low registrations the GP event that was organised for Maryborough was cancelled.
- On reflection, not enough time was set to organise these events as there were some delays due to RAGP points being organised which ultimately affecting available time promoting the event.

IMMUNOTHERAPY

05 September 2018



Venue: The Capital Theatre, Bendigo

Attendees: 16 Evaluations completed: 11

Learning outcomes	Entirely met %	Partially met %	Not met %
Outline treatment options to manage immune related adverse events for patients having immunotherapy	100	0	0
Describe the differences between chemotherapy and immunotherapy	100	0	0
Identify possible side effects of immunotherapy treatment	100	0	0
Identify local referral pathways available to patients who present with an immune related adverse event	82	18	0

Session evaluation	Entirely met %	Partially met %	Not met %
Did the session content meet your learning requirements?	91	0	9
Rate the degree to which this activity is relevant to your practice	73	27	0
please rate the level of knowledge you had about immunotherapy before this session	18	9	73
please rate the level of knowledge you had about immunotherapy after this session	55	45	0

Suggestions for future topics

- skin problems

GP comments

- was a good talk
- brilliant, timely, no access to this info any other way
- disappointed not many GPs attended especially the "clever" experienced ones who go to pharmaceutical company meetings on topics they already know about.

Launch of the Project

➤ In December 2018 we held 4 launches at each site. The launches were also promoted on social media, local printed media, LMICS newsletter & WIN Bendigo.

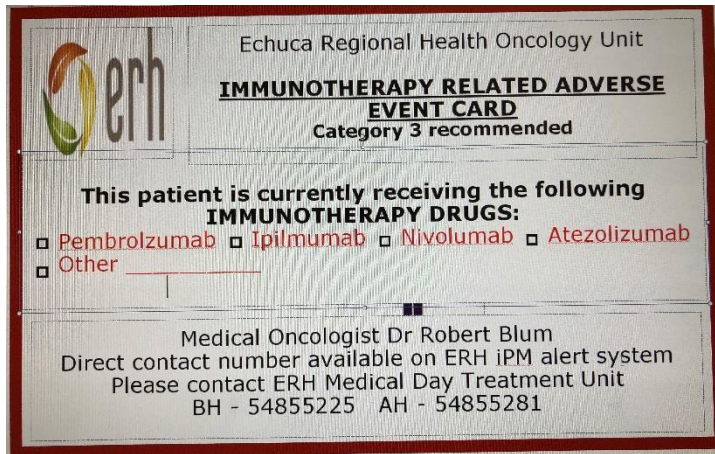


Now the project has finished..

- The patient pathway has been uploaded to quicklinks on the Bendigo Health intranet and will be loaded onto Prompt for the other sites with a policy to be developed to align with the pathway.
- A letter from LMICS will be sent to other ED's in the LMR to inform them of the potential of patients presenting with the wallet sized patient alert card
- The patient pathway is in the process of being uploaded to the WestVic PHN website for GP's to access.
- There is discussion about the patient pathway also being uploaded to the Murray PHN website for GP's to access.

Now the project has finished..

- Echuca Regional Health has implemented the patient alert card with changes made specific to the health services.



Echuca Regional Health Oncology Unit

**IMMUNOTHERAPY RELATED ADVERSE
EVENT CARD**
Category 3 recommended

This patient is currently receiving the following
IMMUNOTHERAPY DRUGS:

- Pembrolizumab
- Ipilimumab
- Nivolumab
- Atezolizumab
- Other _____

Medical Oncologist Dr Robert Blum
Direct contact number available on ERH iPM alert system
Please contact ERH Medical Day Treatment Unit
BH - 54855225 AH - 54855281

Contact the treating Oncology team if patient presents with any of the following signs/symptoms

Endocrinopathies

- * Increased fatigues or mood change/irritability

Gastrointestinal

- * Diarrhoea or increased bowel movements (4+ daily—above baseline)
- * Abdominal pain, cramps or Tenderness
- * Blood, mucous in stools

Hepatic Toxicity

- * Deranged liver function tests—
ALT/AST > 3 times normal range

Neurological

- * Headaches
- * Drowsiness
- * New deficits

Pulmonary


- * Dyspnoea
- * Dry cough

Renal Toxicity

- Skin**
- * Skin blisters
 - * Rash
 - * Pruritis

Grampians Region.....

- Cross-geographical boundary implementation to the Grampians Region beyond patients living in Maryborough.
- Patient alert card changed to suit the Ballarat Regional Integrated Cancer Centre.
- Printing of cards was funded by GICS


IMMUNOTHERAPY RELATED ADVERSE EVENT (IRAE) 
Category 3 recommended

This patient recently received the following IMMUNOTHERAPY DRUGS:

Pembrolizumab Ipilimumab Avelumab Durvalumab
 Atezolizumab Nivolumab Other _____

Patient name: _____
Cancer type: _____
Medical Oncologist: _____

Ballarat Health Service
Day Oncology: (03) 5320 4389 (0830-1700)
AH: 4 South: (03) 5320 4900 or the
Oncology Registrar via Switchboard (03) 5320 4000



Contact the treating Oncology team if patient presents with any of the following symptoms/ signs

Endocrinopathies <ul style="list-style-type: none">▶ Increased fatigue or mood change/irritability	Neurological <ul style="list-style-type: none">▶ Headaches▶ Drowsiness▶ New deficits
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Grampians Region



Ballarat Regional Integrated Cancer Centre (BRICC) is the regional cancer centre for the Grampians region and currently provides four outreach oncology services to Hamilton, Horsham, Maryborough & Stawell.

The estimated resident population for the Grampians, which extends from Melton in the east to the South Australian border in the west is expected to rise to 247,000 by 2020. This will place an enormous burden on the health services including cancer services (GICS, 2010).

Any Questions?