

Pharmacy PD Pathway

Pharmacists play a key role in the care of patients with cancer across the continuum of care. Pharmacists practise in a variety of settings including medical oncology, haematology, palliative care and cytotoxic preparation services. In the page below, find out how some Australian pharmacists have developed their careers in these different settings and access professional development opportunities that are available through a range of avenues, including workplace-based learning, self-directed learning, workshops and seminars, short courses, professional networks, conferences and postgraduate qualifications.

Where are you in your career?

▶ New to cancer care

If you are new to cancer care, you will probably want to start with activities that will provide you with general information about cancer, its diagnosis and treatment. Gaining experience in a broad range of areas may help you not only in your understanding of the needs of patients with cancer but also in your decisions about future career directions.

Tips from Pharmacists

▶ Find a mentor

A mentor can be a great source of advice and support. [Click here](#) for tips on finding a mentor.

"Make sure you have a supportive person available who knows more about oncology or haematology than you do... access to someone who can support you in what you're doing and who can advise you (is important)."

(Christine, Cancer Control team, QLD Health)

"When I first started in oncology ... it was a very new area for pharmacists, but there were a couple of pharmacists in Sydney ... who had been working in the area for a while, so they were very good people to use as resource"

(Vicki, Senior Pharmacist, NSW)

Mentors can help you develop your career, as well as answer clinical and service-related questions that you may be dealing with.

"They'll ring me with specific questions - they've got a patient that's got such and such, and can advise I them on it. Or, a doctor may have recommended a certain protocol and they're a bit unsure about it but they don't feel confident enough to go back to the doctor so they want to know my thoughts and if I know of any supporting literature. There are also service-type questions, so supporting them in their day-to-day work, about service provision is valuable, I also try to keep them up-to-date with any key developments that are happening."

(Christine, Cancer Control team, QLD Health)

▶ Trial a short term-role in pharmacy cancer services

Spending some time in pharmacy assisting in the provision of cancer services can help you decide whether this area of pharmacy might be for you. This can be possible with a hospital rotation in oncology or haematology, by volunteering to assist a senior oncology pharmacist, or by shadowing another pharmacist who works in the area for a period of time.

"I was the member of staff who showed interest in doing (the oncology pharmacist's) position whenever she took leave. When she decided she no longer wanted to work in the area... our Chief Pharmacist asked if I would like to take over the role...from that I've developed a love for the area."

(Vicki, Senior Pharmacist, NSW)

"When I first started in oncology ... it was a very new area for pharmacists, but there were a couple of pharmacists in Sydney ... who had been working in the area for a while, so they were very good people to use as resource"

(Vicki, Senior Pharmacist, NSW)

"Get involved, look what's out there, look what courses there are, become more familiar, more educated in the area of oncology. Just being involved, I think, is the main thing. If you get the opportunity to take over a position, get involved with what's going on. And initially it might mean a bit of extra work or a bit of take-home work just to understand the field, but that's the main tip: be involved and keep up to date."

(Jim, Senior Pharmacist, VIC)

▶ Work in different cancer environments

Exposure to a range of areas and service delivery settings can be helpful, for example, oncology wards, chemotherapy day units, palliative care services or transplantation etc.

"I encourage people to get as broad a view of pharmacy and clinical pharmacy (as possible), before they make final decisions ... if you start specialising it can be harder to move into another area if you decide (oncology) is not really what you want..." **(Gail, Senior Clinical Pharmacist, VIC)**

"...it was a learning experience to get some understanding of the scope and breadth of oncology so I wasn't just fixated with what I was seeing within one small unit. I locumed (in two different hospitals), just to get a taste of what goes on in other areas..." **(Michael, Senior Pharmacist, WA)**

"The majority of our pharmacists will only see a limited spectrum of types of cancer at any given time because the wards are split that way. So I try as much as possible to tell them not to get stuck on one ward, to move through the entire place and see as many different things as they can and spend the time really getting to know as much as they can... Don't get bogged down in one thing too early." **(Gail, Senior Clinical Pharmacist, VIC)**

▶ Self-directed learning on cancer terminology

In addition to drug expertise, pharmacists working in the area need to have an understanding of cancer, including the disease processes, staging and treatment decisions.

"The first thing to do ... is to get a good feeling for the breadth of the problem. That is to understand the general strokes of cancer treatment, not just drug treatment, but radiotherapy and surgery as well, and to work out where everything fits. And then to get an understanding of disease processes, to understand the beast that we're all dealing with. And that sets the scene." **(Michael, Senior Pharmacist, WA)**

"We don't just talk about the drug treatment of the disease, we do a summary of the disease as well - the disease course, the different staging... You've got to understand what the different stages of the disease are to understand why treatment decisions are made..." **(Gail, Senior Clinical Pharmacist, VIC)**

▶ Driving your own learning is important.

"You have to be interested and pro-active to learn those things (knowledge about the diseases) because it's not something that's readily available." **(Gail, Senior Clinical Pharmacist, VIC)**

"The (oncology) position came up by accident... the fact that I then decided to commit myself (to oncology pharmacy) and do more research and reading and get involved in things probably helped me maintain that position ... It was important to get involved in things that were going around at the time" **(Jim, Senior Pharmacist, VIC)**

For more information on self directed learning [click here](#).

▶ Introductory workshops/seminars

Workshops and seminars may be available through a range of avenues. Ask colleagues about local talks being given in your hospital or local area. The Cancer Council in each state and territory often run workshop and seminars on a range of cancer topics. For more information, [click here](#).

▶ Cancer teams

Multidisciplinary care is becoming a fundamental part of the delivery of best practice in cancer care.

"You can ... be a real member of the team. As the pharmacist you're not competing with anybody else on the team, you're part of the team." **(Judith, Senior Pharmacist, SA)** "Cancer itself is a very good area to work in to experience a multidisciplinary environment because ... a lot of the medical and nursing staff are used to seeing pharmacists on ward rounds and having pharmacist input into their patient care. So it's nice way to get that team idea that we all contribute to patient care." **(Christine, Cancer Control team, QLD Health)**

"one of the best things about (working in oncology pharmacy) is the ability to work within in the team and ... be recognised by especially medical staff as having something to contribute to the area. In oncology or treatment of our patients, we're very lucky that ... clinicians do recognise and value pharmacy input." **(Gail, Senior Clinical Pharmacist, VIC)**

▶ Being a member of a multidisciplinary team can be a valuable source of information and can provide ongoing learning opportunities.

"colleagues, whether they're nursing staff, whether they're oncologists themselves, or whether they're other oncology pharmacists, they are an endless source of knowledge and information and it's really important to liaise with these people" **(Debbie, Pharmacist, WA)**

"Our oncologist was very much about making the whole thing a cooperative effort between everybody involved in the patient care. He encouraged the pharmacist to come on ward rounds with him. He also happened to be a very good teacher. If you didn't understand something or why he was doing something in a certain way, he'd take

the time to explain why he was doing it that way. I really enjoyed that clinical role and being able to talk to patients." (Vicki, Senior Pharmacist, NSW)

To access the Cancer Learning Multidisciplinary Toolkit, [click here](#).

▶ Interest groups and organisations

Involvement in local, state-based, national or international networks or special interest groups can be a valuable source of information, ongoing learning and support. Ask colleagues about local groups.

"(the local pharmacist journal club meetings were) valuable in learning more about the area, but also in networking - being able to know who else was working in the area, so once you'd met them, you didn't feel uncomfortable about ringing them up to ask them a question about something you were unsure about." (Vicki, Senior Pharmacist, NSW)

For more information about national and international groups, [Click here](#).

▶ Taking the next step

If you are considering working in a specialised cancer role, you will benefit from building your specialised knowledge and practice-based experience. This may involve attending courses and conferences, undertaking self-directed learning, getting involved in professional networks and groups, and pursuing opportunities to work in cancer pharmacy services within or outside your workplace.

Tips from Pharmacists

▶ Build your experience

Seek and take advantage of all opportunities as they arise. Make your interest known within your workplace, talk with other pharmacists that work in the cancer area, offer to work in a support role with a more senior pharmacist from the area, take up a relief position, accept a position with rotations in cancer, or seek opportunities outside your current workplace.

"its difficult because there aren't a lot of pure oncology positions around, but continue to show the interest -make sure you keep that interest and keep up to date with things ..." (Gail, Senior Clinical Pharmacist, VIC)

Build your practice-based experience, with guidance from more experienced oncology pharmacists.

"Once I identified (oncology) as an area of interest, the first thing I did was to make my opinions known within the unit that I would like some experience in that reg" (Michael, Senior Pharmacist, WA)

"Work under a senior pharmacist first who can actually guide you through the process. As well as understanding how the drugs work, you need to understand the disease process, the different chemotherapy protocols that are used and the different types of supportive therapy. In addition you need to know how the actual service provision works so there's an awful lot of information that you need to be able to apply." (Christine, Cancer Control team, QLD Health)

"Experience is the best teacher - the more hours you put in, the more you get out o" (Debbie, Pharmacist, WA)

▶ Opportunities may present in other ways, such as presentations or research.

"I took any opportunity I could to get involved in anything related to cancer activities, be it local interest groups, be it accepting to do talks for people. In essence you accept the opportunity to give a speech, but behind that would be hours and hours of research. You're driven by the risk of making a fool of yourself on stage, but the end result is that your knowledge base goes up dramatically." (Michael, Senior Pharmacist, WA)

▶ Networks and groups

Involvement in local, state-based, national or international networks or special interest groups can be a valuable source of information and ongoing learning. Ask colleagues about local groups. For more information about national and international groups, [click here](#).

"The best tip I could give anyone, and it's something I wish I'd done from the beginning is to join your professional body straight away. Get involved straight away. COSA is out there, ISOPP is out there.... You can become a member of any body you choose to join... I think that's a great opportunity for people to learn and get involved from the beginning" (Debbie, Pharmacist, WA)

"The benefit to me of societies is the networking opportunities in getting to meet other established pharmacists in oncology and haematology, bone marrow transplants etc. ... That's so helpful from a networking point of view in being able to ring and ask people's opinions." (Judith, Senior Pharmacist, SA)

▶ Learning from online discussion groups is an advantage of special interest groups.

"Joining a group like the COSA Cancer Pharmacists Group which have a discussion forum is always a good way of getting clinical support when you've got questions," **(Christine, Cancer Control team, QLD Health)**

"You can go on there (COSA Cancer Pharmacists Group) and ask anyone a question and it gets emailed to anyone who's a member of the cancer pharmacists group. And you get quite good feedback from that by placing a question. Someone's always got a comment, even if its just agreeing with what you've said. That's a wonderful way of consolidating what you're doing and finding out about what other people are doing." **(Debbie, Pharmacist, WA)**

"(As a member of the Multinational Association for Supportive Care in Cancer), you have the opportunity to be a member of a Study Group in a particular area of supportive care such as chemotherapy-induced nausea and vomiting or mucositis. This provides the opportunity to work with expert professionals.... They can be very help" **(Judith, Senior Pharmacist, SA)**

▶ Conferences

Attendance at relevant state-based, national or international conferences can be helpful for building both knowledge and networks. For conference listings, [click here](#).

"the ISOPP conference - I got a good insight into what these sorts of meetings can provide you with - not only the knowledge but also the network" **(Debbie, Pharmacist, WA)**

"I went to ASCO (American Society of Clinical Oncology) last year which I think is a must for anyone involved in oncology, no matter what your avenue - it is a once in a lifetime experience; its huge, its fantastic, you learn forefront information, its very us" **(Debbie, Pharmacist, WA)**

"I pay for and attend international conferences myself...I know a lot of people aren't prepared to do that... but I've found that's been very, very important for raising and maintaining my level of expertise" **(Judith, Senior Pharmacist, SA)**

▶ Workshops and short courses

In Australia, the main pharmacy course available for those wishing to learn more about cancer and its treatment is a two-day seminar run by the SHPA. For more information about cancer-specific workshops and courses, [click here](#).

" I went and did the (SHPA Oncology Pharmacy Practice) course and that certainly encouraged me - I became very interested in that and went on to do oncology" **(Debbie, Pharmacist, WA)**

▶ Self-directed learning

Once you have a general understanding of cancer, the next step is to build detailed, specialised knowledge.

"Once you've got that general understanding... I'd suggest for these specific areas a really good understanding - basically drill down. Get past the general reviews of topics to actually chase down the evidence and go all the way to the bottom. It's a wonderful process to go through because it gives you insight, it gives you a viewpoint about information in general. It makes you understand there are considerable weaknesses in the body of knowledge that we do have." **(Michael, Senior Pharmacist, WA)**

"You've got to know your stuff. You've got to be willing to spend the time - it's not just enough to know what the drugs are, you do have to really start to understand the diseases as well. You've really got to have the willingness to learn and spend time" **(Gail, Senior Clinical Pharmacist, VIC)**

A range of sources of information are available including websites, journals, textbooks, and interactive CD-ROMs. Clinical practice guidelines are available for a range of cancer types. For more information, [click here](#).

"if you find there is so just much to remember and you can't remember something, you can go straight to one of these websites and it gives you a nudge, points you in the right direction again" **(Debbie, Pharmacist, WA)**

Asking other pharmacists and specialists is also a good way to build your knowledge

"Occasionally you come across things that you don't know. And I don't think people should be afraid to ask because there are other people who know much more in that particular field. Even now I still approach people who know more, say, in the field of ovarian cancer, because that's something we don't deal with a lot here, as an example." **(Jim, Senior Pharmacist, VIC)**

▶ General skills

In addition to your cancer skills and knowledge, you may also identify other general skills that will help you in your role. Training may include communication skills training or presentation skills training.

For more information, [click here](#).

"You've got to really be good at talking to people... We do have a lot of communication role that does meld in with the medical (aspect). So you've got to be comfortable talking to doctors..." (Gail, Senior Clinical Pharmacist, VIC)

An important aspect of training for cancer pharmacists is **self-care**. To access a list of self-care resources, [click here](#).

"Cancer deals with dying patients... That can be a problem for some people; so you have to be comfortable in that area as well, and try and be able to deal with that type of thing. That can be a hard thing to do but there are plenty of support mechanisms out there to try and assist if that becomes an issue.... such as debriefing sessions for staff - knowing that they're there, being able access them, just being able to talk about experiences is important." (Jim, Senior Pharmacist, VIC)

"Oncology can be a difficult field and there are a lot of issues with regard to burn-out in the area, so get involved with your colleagues, in the state or even around the country, is important to try and overcome the issues and the frustrations that we all come acr" (Jim, Senior Pharmacist, VIC)

▶ Advanced practice

If you are working at or considering moving into an advanced role in cancer care, your professional development needs will be more specific.

Tips from Pharmacists

▶ Participate in research

Involvement in large clinical trials or undertaking your own practice-based research can help build your expertise.

"If you're working in the area or thinking of going into the area, try and get involved in practice research, and apply for all the grants available... through groups like COSA and SHPA - they advertise the grants on their websites" (Christine, Cancer Control team, QLD Health)

▶ Build your practice-based experience, with guidance from more experienced oncology pharmacists.

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▶ Opportunities may present in other ways, such as presentations or research.

"I took any opportunity I could to get involved in anything related to cancer activities, be it local interest groups, be it accepting to do talks for people. In essence you accept the opportunity to give a speech, but behind that would be hours and hours of research. You're driven by the risk of making a fool of yourself on stage, but the end result is that your knowledge base goes up dramatically." (Michael, Senior Pharmacist, WA)

▶ Give presentations or get involved in organising relevant state-based or national conferences

Giving presentations at national and international conferences can help you learn while also sharing knowledge with others. Being involved in the organising committees for conferences can be rewarding and can help you develop new networks.

For conference listings, [click here](#).

"Share your experiences with others - either at conferences or by publishing your work" (Christine, Cancer Control team, QLD Health)

"Presenting data because I think one way to learn a topic is to do a small amount of practice-based research and present on the t" (**Judith, Senior Pharmacist, SA**)

"You learn so much more from having to give the talk yourself and being aware of the sorts of questions that might be thrown to you at the end. So I'd really encourage that - no matter whether you've been doing oncology for six months or you've been doing it for six years. To get involved and actually present is an excellent experience" (**Debbie, Pharmacist, WA**)

▶ Undertake relevant postgraduate qualifications

At present there are no specific postgraduate qualifications available in Australia for pharmacists specialising in cancer. However, you may choose to focus research-based degrees in the area of cancer, through a Masters degree or a Doctor of Clinical Pharmacy.

Institutions overseas run cancer-specific pharmacy qualifications by correspondence. For more information, [click here](#).

▶ Undertake training in leadership and mentoring skills

In addition to your cancer skills and knowledge, you may also identify other general skills that will help you in your role. For more information, [click here](#)

▶ Case studies

Find out what pharmacists do in cancer, what they enjoy about their work, and how they have built their careers in cancer pharmacy:

▶ Christine Carrington is a clinical pharmacist with the Cancer Control team at Queensland Health, QLD

Role	<p>Clinical Pharmacist with Cancer Control team, QLD Health, with responsibility for:</p> <ul style="list-style-type: none"> • a mentoring program supporting pharmacists state-wide, particularly in rural/regional areas, by providing support, clinical advice & learning resources • implementation of evidence-based protocols with respect to chemotherapy • implementation of an oncology electronic information system for patient management and protocols.
Special interests	<ul style="list-style-type: none"> • management of chemotherapy induced side effects • use of oral therapies • melanoma, head and neck cancers and myeloma • medication safety and chemotherapy • developing the role of the pharmacist in cancer services
The positives	<p><i>"I do love it. Cancer itself is a very good area to work in a multidisciplinary environment because pharmacists generally are very well accepted, unlike some other areas. A lot of the medical and nursing staff are used to seeing pharmacists on ward rounds and having pharmacist input into their patient care. So it's nice to get that team feeling. Also it is an area that's always changing because of trials and research. It's a good area to see how things are evolving. Every week can be different."</i></p>
Pathway	<ul style="list-style-type: none"> • Completed an undergraduate pharmacy degree in the UK • Went straight into hospital pharmacy, where she did 1 year of general rotation, followed by a couple of years working under a senior pharmacist in oncology • Worked as a senior pharmacist in oncology in various roles in the UK and then in Australia • Worked as a Cancer Services Coordinator in the Pharmacy Department in a QLD Hospital, before starting in her strategic project role with the Cancer Control Team.
Training and courses	<ul style="list-style-type: none"> • Currently studying for a Doctor of Clinical Pharmacy • Masters in Medical Science in Clinical Oncology • Diploma Clinical Pharmacy

	<ul style="list-style-type: none"> • Attended a variety of middle management courses with the NHS (communication staff performance etc) • Undergraduate Pharmacy degree, UK
Groups and networks	<p>Member of:</p> <ul style="list-style-type: none"> • COSA . member of executive committee and Chair of the Cancer Pharmacists Group (CPG) • SHPA (Society of Hospital pharmacists) • ISOPP (the International Society of Pharmacy Practitioners) • BOPA (British Oncology Pharmacy Association) <p><i>"I have a good network group of pharmacists across the country... In terms of looking for support, for answers to questions, I would use some of the other pharmacists in other states if I had questions or wanted some advice. We also have the Pharmacists Discussion Group on the COSA website which is a great resource. I initially came over to Australia in 2000 from the UK and had to start all over again in terms of building networks - but it can be done! "</i></p>
What helps?	<ul style="list-style-type: none"> • Signing up for electronic alerts and scanning tables of contents for relevant journal articles to keep up to date • Being involved with relevant societies/organisations/networks • Checking relevant websites regularly • Attending multidisciplinary journal clubs and educational meetings for cancer services in the hospital • Attending consultant ward rounds • Attending local evening talks and large (national and international) conferences where possible • Getting involved in practice research • Asking medical staff or other pharmacists in the network about clinical questions that may arise • Double-checking/ asking questions if you're not sure!

▶ Debbie Bajrovic is an oncology pharmacist at a private hospital in Perth, WA

Role	<p>Oncology pharmacist at a small private hospital in Perth, with responsibility for: supervising technicians, preparing chemotherapy, liaising with nursing staff and oncologists regarding all aspects of cancer care including oncology charts, doses, blood results, dose reductions . Also involved in clinical trials within the hospital.</p> <p><i>"It's a busy profession, where there's never a moment to spare, there's always something to do. It's sad at times, it's rewarding at times, it's just got every aspect. It's a very satisfying profession to be in."</i></p>
Links	70% cases are breast cancer; also see bowel, lung and haematology cases
The positives	<i>"It's a great profession! It's just so exciting, it's at the forefront of medical research at the moment - there's so much happening in cancer care and cancer research, clinical trials. We're looking towards targeted therapies ... it's the way we're heading, it's certainly producing some excellent results clinically... its very exciting, there's so much happening and we're actually making some progress as well. It's a long road, but when you see results like we're seeing at the moment with these new molecular targeted therapies, it's exciting stuff!"</i>
Pathway	<ul style="list-style-type: none"> • As a pharmacy student in the 1980s, helped to set up an oncology suite in a large hospital • Following a long break from pharmacy for number of years, got back in to general pharmacy hospital in 2000 and fell into an oncology pharmacy role shortly after • Since then has immersed herself in learning about oncology pharmacy, for example through courses, self-directed learning, networks, meetings and conferences

Training and courses	<ul style="list-style-type: none"> • SHPA Oncology Pharmacy course • Undergraduate Pharmacy degree
Groups and networks	<p>Member of:</p> <ul style="list-style-type: none"> • Oncology Nursing and Pharmacist Interest Group (ONPIG), WA • ISOPP (the International Society of Oncology Pharmacy Practitioners) • COSA Cancer Pharmacists Group <p><i>It's very important to join your professional bodies because, not only do you meet people doing exactly the same thing you're doing Australia-wide, but also you're constantly sent information"</i></p>
What helps?	<ul style="list-style-type: none"> • Getting involved with professional groups and networks • Self-directed learning using websites, journals, textbooks • Attending and presenting at conferences • Attending meetings, workshops and seminars • Talking with colleagues • Asking questions • Liaising with pharmaceutical company representatives • Getting involved with clinical trials <p><i>"I tend to learn a lot more from hands on workshops, conferences, seminars, than I do reading journals"</i></p> <p><i>"Don't be afraid to ask questions. Don't be afraid to not know everything. You can't know everything all of the time, you're only going to learn by asking"</i></p>

▶ Gail Rowan is a senior clinical pharmacist at a large cancer centre in Melbourne, VIC

Role	<p>Senior clinical pharmacist at a large cancer centre in Melbourne. Responsible for managing clinical services for the pharmacy department, including looking after:</p> <ul style="list-style-type: none"> • the inpatient pharmacy department • clinical services for other departments • education and training of clinical pharmacists in oncology <p><i>"I like the fact that it is clinically based but still has a degree of senior responsibility with it. So instead of just being the clinical pharmacist, I also have a variety of jobs. I like the fact that I get to work with pharmacists who are starting out in oncology and other areas and training and working with them... helping them develop their roles. And I also like that I do get to keep a relatively large clinical involvement I still have a clinical base in haematology, along with one of the other pharmacists, and overseeing other areas, so I do still get to see patients on a fairly regular basis."</i></p>
Links	Special interest in haematology
The positives	<i>"One of the best things about (oncology pharmacy) is the ability to work within in the team and actually be recognised - not necessarily obviously as a major player in the team - but be recognised by especially medical staff as having something to contribute to the area. In oncology or treatment of our patients, we're very lucky that ... clinicians do recognise and value pharmacy input."</i>
Pathway	<ul style="list-style-type: none"> • Started in hospital pharmacy straight after qualifying as a pharmacist • After moving into a large hospital area, was asked to manage the cytotoxic production unit on a short-term arrangement which led to longer term opportunities • Gave up production management about 13 years ago to focus on clinical work • Started work with the Cancer Centre about 5 years ago

Training and courses	<ul style="list-style-type: none"> Board Certification in Oncology Pharmacy, USA Undergraduate Pharmacy degree, NZ
Groups and networks	<p>Member of:</p> <ul style="list-style-type: none"> COSA Cancer Pharmacists Group VOPSIG (Victorian Oncology Pharmacy Special Interest Group) ISOPP (the International Society of Pharmacy Practitioners)
What helps?	<ul style="list-style-type: none"> Having a broad view of pharmacy and clinical pharmacy before specialising Attending VOPSIG educational dinners Attending relevant medical training in the hospital, such as journal clubs, educational meetings Attending conferences Attending and running education within the pharmacy department Networking with other pharmacists Running an informal mentoring program within the hospital for less experienced pharmacists Self-directed learning, including journals

▶ Jim Siderov is a senior pharmacist in a tertiary hospital in Melbourne, VIC

Role	<p>Senior pharmacist, cancer services, in a tertiary hospital in Melbourne, with responsibility for overseeing production and the clinical area of cancer services from a pharmacy perspective, and looking after the day unit.</p> <p><i>"I like where I am. It's taken a long time to get here, and I'm not interested in getting out of a clinical role... I'm not interested in a managerial role... I'm happy where I'm at, because of the fact I feel I can do a lot here, I'm a member of a team, and its an ever changing field... I'm actually enjoying myself!"</i></p>
The positives	<p>Early on:</p> <p><i>"It was a more multidisciplinary approach when I started, more than any other facet of pharmacy back then, just being involved. With the drugs, with the therapies, with the ability to look at the treatments, the side-effects, to be able to help, helping with the toxicities, just being involved, being part of a team."</i></p> <p>And now:</p> <p><i>"I'm still enjoying the concepts. Oncology pharmacy's changed a lot, we've got newer - molecular targets for example - the drug therapy has changed, so keeping up with that is important. Because its ever changing - I think that's what's exciting as well. I also think the supportive care issues relating to pharmacy are important. Those newer therapies that have changed over time have allowed us to have a bigger input into minimising the toxicities for patients."</i></p>
Pathway	<ul style="list-style-type: none"> Has about 20 years experience in oncology pharmacy, which started when an oncology position came up a couple of years into his career. Built career through 'on-the-job-training', self-directed learning and formal courses
Training and courses	Board Certification in Oncology Pharmacy, USA (twice - redid the course after 7 years to stay accredited)
Groups and networks	<p>Member of:</p> <ul style="list-style-type: none"> COSA Cancer Pharmacists Group

What helps?	<ul style="list-style-type: none"> • Self-directed learning through journals, electronic alerts, websites, conference proceedings • Attending and presenting at conferences • Lecturing at courses or educational meetings helps keep up to date • Attending ward rounds with medical staff • Asking questions • Networking with colleagues • Getting involved!
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▶ Judith Lees is a senior oncology pharmacist in a cancer centre in Adelaide, SA

Role	Senior role within a cancer centre in South Australia. Responsible for protocol management and research; and providing expert clinical and drug information advice
Links	Special interest in supportive care
The Positives	<i>"Oncology pharmacy ... it's something you can become a specialist in and be a real member of the team. As the pharmacist you're not competing with anybody else on the team, you're part of the team."</i>
Pathway	<ul style="list-style-type: none"> • Started in general clinical pharmacy as a graduate pharmacist • Took up an opportunity to concentrate on the main ward doing chemotherapy • Undertook self-directed learning to up-skill in oncology • Many years experience as a clinical pharmacist for medical oncology and haematology units, with additional experience in establishing antiemetic programs in gynaecology
Training and courses	<ul style="list-style-type: none"> • Participated in establishing the SHPA Oncology Pharmacy course • Undergraduate Pharmacy degree
Groups and networks	<p>Member of:</p> <ul style="list-style-type: none"> • MASCC (Multinational Association for Supportive Care in Cancer) - Board member • ISOPP (the International Society of Pharmacy Practitioners) - Previous role on the Secretariat and Chair of Publications Committee • COSA Cancer Pharmacists Group - former Chair • Cancer Clinical Network, SA
What helps?	<ul style="list-style-type: none"> • Self-directed learning through reading case notes, websites, conference proceedings, scanning electronic alerts from major cancer, pharmacy and pharmacology journals • Attending and presenting at conferences • Attending other meetings and symposiums • Joining multidisciplinary groups and networks • Participating in online discussion forums through groups and networks • Attend meetings, symposiums, conferences, including multidisciplinary ones • Getting involved!

▶ Michael Cain oversees pharmacy services to cancer clinical services in a large hospital in Perth, WA

Role	Senior pharmacist, cancer services, in a tertiary hospital in Melbourne, with responsibility for overseeing production and the clinical area of cancer services from a pharmacy perspective, and looking after the day unit.
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	<i>"I like where I am. It's taken a long time to get here, and I'm not interested in getting out of a clinical role... I'm not interested in a managerial role... I'm happy where I'm at, because of the fact I feel I can do a lot here, I'm a member of a team, and its an ever changing field... I'm actually enjoying myself!"</i>
Links	Special interest in protocol development
The positives	<i>"Its clearly a drug-rich area, its rich in terms of its problems, its rich in terms of its financial impact, its rich in terms of the personal side of things in that there is considerable side-effects and at the same time considerable imperative for patients to have treatment. It was very attractive as a pharmacist from that perspective"</i>
Pathway	<ul style="list-style-type: none"> • Oncology grabbed attention early on as a pharmacy graduate, so made his interest known within the hospital he was working • In order to secure a permanent position in oncology pharmacy within the hospital Michael undertook further formal training, self-directed learning, attended a number of overseas conferences, worked as a locum in different hospitals to gain experience in different services with different approaches, got involved in an SHPA project to write a handbook. • Has been working in oncology pharmacy ever since.
Training and courses	<ul style="list-style-type: none"> • Postgraduate pharmacy studies • Undergraduate pharmacy degree
Groups and networks	<p>Member of:</p> <ul style="list-style-type: none"> • COSA Cancer Pharmacist Group
What helps?	<ul style="list-style-type: none"> • Self-directed learning, using textbooks, drug information manuals, own research, horizon-scanning of electronic journal alerts • Attending conferences - local Australian conferences are particularly helpful for networking and understanding the Australian environment, overseas conferences are particularly helpful for extending content knowledge • Attending meetings, seminars, workshops, speakers • Reviewing evidence areas in detail

▶ Vicki Wilmott oversees and coordinates chemotherapy production for a cancer care centre in a public hospital in Wollongong, NSW

Role	Oversees and coordinates chemotherapy production for a cancer care centre in a public hospital in NSW
The positives	<i>"Very early on we took over the role of explaining cancer chemotherapy to patients before they began their course of treatment. That was very rewarding being involved in that stage."</i>
Pathway	<ul style="list-style-type: none"> • Initial pharmacy experience was gained in psychiatric and cardiac pharmacy • Showed an interest in oncology pharmacy by temporarily doing the oncology pharmacy role in the hospital whenever that pharmacist went on leave • Was asked to take on the role permanently when the oncology pharmacist left - and she has working in oncology pharmacy ever since
Training and courses	<ul style="list-style-type: none"> • SHPA Oncology Pharmacy course - early on in career and again more recently as a refresher course • Undergraduate Pharmacy degree

Groups and networks	Member of: <ul style="list-style-type: none"> • COSA Cancer Pharmacists Group • ISOPP (the International Society of Pharmacy Practitioners) • Local Sydney pharmacists interest group
What helps?	<ul style="list-style-type: none"> • Having mentors you can call on, particularly early on • Participating in a local pharmacist • Attending local special interest groups, journal clubs • Participating in web-based discussion areas such as those with ISOPP • Attending conferences, nationally and internationally <p><i>"Don't feel as though you have to know everything straight away. Its such a large area and it does take time"</i></p>

Conference / event listings

▶ Australian

COSA (Clinical Oncology Society of Australia)

<http://www.cosa.org.au/asm.html>

ISOPP the International Society of Oncology Pharmacy Practitioners Australasian Regional Meetings

<http://www.isopp.org/>

MOGA (Medical Oncology Group of Australia Incorporated)

<http://www.moga.org.au/>

▶ International

ISOPP (the International Society of Oncology Pharmacy Practitioners)

<http://isopp.org/>

ASCO (the American Society of Clinical Oncology)

<http://www.asco.org/ASCOv2/Meetings/Calendar+of+Events>

ASH (American Society of Haematology)

<http://www.hematology.org/meetings/>

MASCC (the Multinational Association for Supportive Care in Cancer)/ ISOO Symposium on Supportive Care in Cancer

<http://www.mascc.org/>

San Antonio Breast Cancer Symposium

<http://www.sabcs.org/>

Organisations and Networks

▶ Australian

Cancer Pharmacists Group (CPG), COSA <http://www.cosa.org.au/groups/cancer-pharmacists.html>

Society of Hospital Pharmacists of Australia

<http://cpd.shpa.org.au/scripts/cgiip.exe?WService=SHPACP/ccms.r>

Pharmaceutical Society of Australia <http://www.psa.org.au/>

Includes a flow chart about how to develop a continuous learning plan

Pharmacy Guild of Australia <http://www.guild.org.au/>

Rural and Remote Pharmacy Workforce Development <http://www.guild.org.au/Rural/>

Getting involved with local special interest groups can also help you learn, meet others involved in cancer care, and plan your professional development. Examples of local special interest groups include:

- QPOIG - Queensland Pharmacists Oncology Interest Group, QLD
- ONPIG - Oncology Nursing and Pharmacist Interest Group, WA
- VOPSIG - Victorian Oncology Pharmacy Special Interest Group, VIC

Talk to other pharmacists or contact the Cancer Pharmacists Group, COSA, to find out special interest groups in your local area.

▶ International

The International Society of Oncology Pharmacy Practitioners (ISOPP) <http://www.isopp.org/>

The Multinational Association of Supportive Care in Cancer (MASCC) <http://www.mascc.org/>

Courses and workshops

▶ Postgraduate qualifications

Board Certification in Oncology Pharmacy, USA <http://www.bpsweb.org/specialties/oncology.cfm>

This self-directed certification is recognised in USA but known internationally because it is a dedicated oncology pharmacy course. Some Australian pharmacists have completed the course, including the following two pharmacists who have written about their experiences:

<http://careers.shpa.org.au/scripts/cgiip.exe/WService=SHPACA/ccms.r?PageId=13>

Postgraduate courses in Oncology Pharmacy Practice are available at universities overseas. For example: **The Oncology Pharmacy Practice Program at the Liverpool John Moores University, UK (available by distance-learning)** <http://www.ljmu.ac.uk/courses/cpd/67767.htm>

Oncology and Palliative Care MSc, Postgraduate Diploma, Cancer Studies PG Certificate (available by distance-learning) Newcastle University <http://www.newcastle.ac.uk/>

▶ Other cancer-specific courses

Cancer Pharmacists Group (CPG)

Clinical Skills for Cancer Pharmacy Practitioners Course

<http://cpg.iamevents.com.au/index.php>

The Society of Hospital Pharmacists of Australia (SHPA)

Oncology Pharmacy Practice Seminar

<http://cpd.shpa.org.au/scripts/cgiip.exe/WService=SHPACP/ccms.r?PageId=6>

▶ Online courses

Society of Hospital Pharmacists of Australia (SHPA) CPD Online

<http://cpd.shpa.org.au/scripts/cgiip.exe/WService=SHPACP/ccms.r?PageId=7>

Society of Hospital Pharmacists of Australia (SHPA) CE on CD

<http://cpd.shpa.org.au/scripts/cgiip.exe/WService=SHPACP/ccms.r?PageId=10016>

The Oncology Pharmacist Continuing Education Program

<http://theoncologypharmacist.com/continuing-education>

Centre of Excellence Oncology Pharmacy Online Courses

<http://www.coexm.com/activities>

Centre of Excellence Hematology Pharmacy Online Courses

<http://www.coexm.com/activities>

Hematology Oncology Pharmacy Association (HOPA) Resources

<https://www.hoparx.org/Resources.aspx>

Canadian Society of Hospital Pharmacists

http://www.cshp.ca/programs/onlineeducation/index_e.asp

International Society of Oncology Pharmacist Practitioners Education Centre (Members only)

<http://www.isopp.org/>

Nuclear Pharmacy Online Education

http://www.nuclearonline.org/nuclear_education/default.asp

American Pharmacists Association Online Education

http://www.pharmacist.com/AM/Template.cfm?Section=Continuing_Education&Template=/TaggedPage/Education.n.cfm

STAT Educational Services Oncology Pharmacist programs

<http://www.carmelpharmausa.com/CE>

2009 ACCP/ESCP International Congress on Clinical Pharmacy Revisiting Pain Management in Cancer Patients: Breakthrough Pain and its Treatments

<http://www.accp.com/media/pain/>

▶ Workshops and seminars

The Cancer Council WA

Professional Development Program

<http://www.cancerwa.asn.au/professionals/>

The Cancer Council Queensland

Allied Health Professionals Oncology Group Forums

http://www.cancerqld.org.au/page/Need_support/Education_Programs/AHPOG

The Cancer Council Victoria

Short courses in Victoria on:

- Breast Health
- Communication
- Sexuality and cancer
- Living with cancer facilitator education

http://www.cancervic.org.au/about-cancer/for-health-professionals/training_courses_and_education

▶ Non-clinical skills

National Breast and Ovarian Cancer Centre <http://www.nbocc.org.au/health-professionals/clinical-best-practice/communication-skills>

Communication skills

Self-directed learning

▶ Australian

Cancer Learning <http://www.cancerlearning.gov.au/>

Interactive learning modules on:

- Multidisciplinary care
- Psychosocial care

Links to cancer education resources across a broad range of areas.

EdCaN learning resources

Case studies: http://www.cancerlearning.gov.au/edcan_resources/#/xml/module_3/casestudies/

Supporting modules:

- [The cancer journey and domains of specialist cancer nursing practice](#)
- [Population health concepts in cancer control](#)
- [The biology of cancer](#)
- [Cancer treatments:](#)
 - - Fundamentals of cancer surgery
 - - Fundamentals of radiotherapy for cancer
 - - Fundamentals of systemic cancer therapies
 - - Fundamentals of cancer biological and molecular targeted therapies
 - - Fundamentals of haematopoietic stem cell transplant
- [Supportive care](#)
- Culture-centred approach in cancer control for Indigenous Australians - coming soon

The Cancer Council NSW <http://www.cancercouncil.com.au/editorial.asp?pageid=671> Resources on:

- Cancer awareness (for Aboriginal and Torres Strait Islander Health Workers)
- Talking about sexuality, body image and cancer
- Managing cancer pain

Clinician's Health Channel <http://www.health.vic.gov.au/clinicians/>

For health professionals in Victoria - provided by the Department of Human Services

Cancer Institute NSW eviQ Cancer Treatments Online

<https://www.eviq.org.au/> Includes the main reference source for chemotherapy protocols in Australia.

Therapeutic Goods Administration (TGA) <http://www.tga.gov.au>

Australian regulatory body for medicines and devices; website includes a list of orphan drugs and information about adverse drug reaction reporting

Pharmaceutical Benefits Scheme <http://www.pbs.gov.au/html/home>

Website contains a listing of the medicines subsidised by the Australian Government under the PBS, which is updated monthly.

▶ International

National Cancer Institute <http://www.cancer.gov/>

USA based website - includes information for consumers and health professionals about different cancers and treatment options, including complementary medicines.

British Columbia Cancer Agency <http://www.bccancer.bc.ca/default.htm>

Canadian based website - includes information for consumers and health professionals, including management protocols by disease state.

National Comprehensive Cancer Network <http://www.nccn.org/> USA based website that includes clinical guidelines for cancer treatment.

Avon, Somerset and Wiltshire Chemotherapy Handbook <http://www.aswcs.nhs.uk/main.cfm?type=CHEMO>

UK chemotherapy protocol summaries hosted on the UK National Health Services website.

Multinational Association for the Supportive Care in Cancer

<http://www.mascc.org/mc/page.do?sitePagelId=86987&orgId=mascc>

International multidisciplinary website includes links to clinical practice guidelines in supportive care.

The National Extravasation Information Service <http://www.extravasation.org.uk/home.html>

UK website for information on, the reporting of, and the improved detection, management and outcome for extravasation injuries.

Adjuvant! Online <http://www.adjuvantonline.com/index.jsp>

A USA-based decision-making tool that aims to help health professionals and patients with early cancer discuss the risks and benefits of getting additional therapy (adjuvant therapy: usually chemotherapy, hormone therapy, or both) after surgery.

OncologySTAT <http://www.oncologystat.com/index.html>

A USA-based website providing access to Elsevier cancer-related journals, journal scans, daily medical and regulatory news, professional drug and interactions database, chemotherapy regimens, weekly en-ewsletter and discussion forums.

Grants / fellowships / scholarships

▶ Australian

Cancer Institute NSW - education scholarships

http://www.cancerinstitute.org.au/cancer_inst/profes/scholarships.html

SHPA - research and development grants

<http://www.shpa.org.au/scripts/cgiip.exe/WService=SHPA/ccms.r?Pageld=29>

COSA - fellowships, grants and awards available for members

<http://www.cosa.org.au/about-us/general-grants.html>

Check hospitals/area health services for local grant availability