COVID'S IMPACT ON BREAST CANCER IN AUSTRALIA

RADIATION THERAPY ADVISORY GROUP

Breast cancer does not wait. Early diagnosis and access to care is critical to save lives.

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Introduction

From the moment COVID-19 arrived in Australia, measures taken to prevent the spread of the virus have significantly disrupted cancer services and treatment pathways across the country.

It may be easy to assume that because Australia has had comparatively modest numbers of COVID-19 infections compared to other countries, that our health services have not been affected in a comparable way. It's important to note from the outset that it's not necessarily the scale of infection that has the biggest impact, but the scale of respective responses to it.

With that in mind, Victoria implemented one of the longest and strictest continuous lockdown anywhere in the world, with a duration of 112 days. To that end, while Australia has escaped the inordinate infection numbers experienced elsewhere, measures taken in health settings and by patients across Australia broadly resemble those taken in countries that have.

For example, patient traffic has been deliberately reduced to a minimum resulting in backlogs, missed appointment and delays. Experts have also observed changes in the healthcare-seeking behaviour of many patients too, with many avoiding going to the GP or hospital to access the routine health checks, testing, and diagnostic services they need. ¹ in an effort to reduce health care settings' exposure risk, many elective and routine procedures have been suspended. ²

As the most common cancer affecting women in Australia, In 2021 it is estimated that that 20,030 people will be diagnosed with breast cancer. This is an average of 55 people per day. Amid rising numbers of COVID infections, fresh restrictions are being implemented and breast cancer screening appointments across Greater Sydney, regional and rural NSW are now being postponed. ³ It is therefore critical to understand what potential consequences these measures have for the detection and treatment of breast cancer in Australia. ⁴

COVID-19's Impact on Breast Cancer Screening and Treatment

In Australia, with the implementation of the first COVID-19 measures, from March to April 2020 breast cancer screening fell 98 per cent across Australia. In total, between January and June 2020, around 145,000 fewer screening mammograms were conducted compared with January to June 2018.⁵

In Victoria, where the longest most restrictive lockdown was implemented, breast cancer screening procedures fell 37% at the beginning of lockdown in 2020. ⁶

⁶ Luc te Marvelde, Rory Wolfe, Grant McArthur, Louis A Blake, Sue M Evans, "Decline in cancer pathology notifications during the 2020 COVID-19-related restrictions in Victoria", Med J Aust, Mar 2021; 214 (6): 281-283.





¹ https://www1.racgp.org.au/newsgp/racgp/major-new-campaign-encourages-patients-to-see-thei

 $^{^2\,}https://www.smh.com.au/national/nsw/icu-cases-reach-highest-level-as-non-urgent-surgery-suspended-at-major-hospitals-20210728-p58dq1.html$

³ https://www.9news.com.au/national/coronavirus-nsw-update-breast-cancer-screenings-cancelled-greater-sydney-lockdown/7a3c8e22-397c-49e4-b850-23453a3e341e

⁴ https://www.bcna.org.au/understanding-breast-cancer/

⁵ https://www.aihw.gov.au/reports/cancer-screening/cancer-screening-and-covid-19-in-australia/contents/how-has-covid-19-affected-australias-cancer-screening-programs

As a result of disruptions like these to cancer screening services, Cancer Australia reported that by August 2020 presentations to oncology centres had plummeted, with a 40 per cent reduction reported compared with previous years.⁷

For patients who were diagnosed with breast cancer, lockdown delayed treatments too, including surgery. On top of a reduction in screening, compared with March and April 2020 the number of monthly breast cancer-related surgical treatment procedures performed across Australia declined 33% by May. In Victoria they remained 33% lower by August that year.⁸

Similar experiences have occurred overseas and a study from Taiwan examining delayed breast cancer detection confirmed that it's not the scale of the pandemic that matters, but the scale of screening reductions. Taiwan has experienced fewer COVID-19 infections than Australia (approximately 16,000) and has avoided any form of full lockdown, and is widely considered an excellent example of effective pandemic control.

Between January and June 2020, biennial screening mammography was substantially reduced, with a 45% decrease in the total volume during this period. In the same period, the total number of breast cancers and - crucially - early breast cancer diagnoses, decreased by 10% and 38%, respectively, between January and June 2020. Prior to COVID-19, individuals with early stage breast cancer accounted for 71% of total diagnosed breast cancers, compared to 49% with the onset of restrictions.

Similarly, in the UK, which in contrast has recorded nearly 5.4 million COVID cases, the national screening program was suspended between March and September 2020. Breast cancer screening accounted for 34% of all breast cancer diagnoses before the pandemic. 12

A Lancet study found that since March 2020, when screening for breast cancer was suspended and changes in health-seeking behaviour were observed, urgent 2-week-wait cancer referrals decreasing by up to 80% in response to physical distancing and concerns about contracting the virus. ¹³

Finally, one Dutch study modelled the impact of 6 month suspensions to breast, colorectal and cervical cancer screening of in Netherlands. In this scenario, breast cancer experienced the largest increase in mortality. The study also showed that only a large increase in screening resources to rapidly catch-up with missed patients would result in minimal effects on cancer mortality. ¹⁴

¹⁴ L. Kregting, S. Kaljouw, L. de Jonge, E.E.L. Jansen, E.F.P. Peterse, E.A.M. Heijnsdijk, N.T. van Ravesteyn, I. Lansdorp-Vogelaar, I.M.C.M. de Kok., "Effects of cancer screening restart strategies after COVID-19 disruption", *European Journal of Cancer*, Proffered Paper Session: Measuring Impact of Covid-19 on Breast Cancer Care, volume 138, supplement 1, s16, October 01, 2020





⁷ https://www.skynews.com.au/australia-news/cancer-cases-surge-amid-covid19-lockdowns/video/c38fd11d1b79c8daaec8a736c013793a

⁸ Cancer Australia, National and jurisdictional data on the impact of COVID-19 on medical services and procedures in Australia: Breast, colorectal, lung, prostate and skin cancers, December 2020.

⁹ Chou C.P., Lin H.S.. "Delayed Breast Cancer Detection in an Asian Country (Taiwan) with Low COVID-19 Incidence", Cancer Management and Research. 2021 Jul 28;13:5899-5906.

¹⁰ Ibid.

¹¹ Ibid.

¹² Richardson, B. and Bentley S., Disruption and Recovery of Cancer from COVID-19, Carnall Farrar, August 2020, available from: https://www.qub.ac.uk/coronavirus/filestore/Filetoupload,985486,en.pdf

¹³ Maringe C. et al., "The impact of the COVID-19 pandemic on cancer deaths due to delays in diagnosis in England, UK: a national, population-based, modelling study", Lancet Oncology, 2021, Jan;22(1):e5.

A further Dutch study showed fewer diagnoses of breast were made during the early stages of the initial COVID-19 outbreak in the Netherlands. This effect was most pronounced among the age groups eligible for breast cancer screening programmes (age group 50–74 years).¹⁵

Consequences: Delays Increase Risk

Clearly, examples like this show that coupled with changes in health-seeking behaviour and referral practices, suspensions to cancer screening programmes result in fewer breast diagnoses. This could lead to delayed diagnosis and increased risk of progression and spread of disease.

UK Charity Breast Cancer Now calculated that around 8,600 British women who have missed a scan as a result of COVID-19 restrictions have undetected breast cancer as a result. 16 A Lancet study concluded that delays to screening and diagnoses for the 12-month period from March 16, 2020 to March 15, 2021 would result in a 7.9-9.6% increase in the number of breast cancer deaths. 17

It doesn't matter that COVID-19 is not as prevalent in Australia as other countries. It may be that comparable restrictions have comparable results. Many Australian health experts are similarly anticipating that when normal services resume, patients will present with more advanced cancers because they missed screenings and went undiagnosed. There were after all 2530 fewer cancer diagnoses in Victoria alone by October 2020, including 301 cases of breast cancer.

The impact of delays in diagnosis will be compounded by any subsequent delays in treatment. One international meta-analysis conducted in October 2020 stated that just a four-week delay of cancer treatment is associated with increased mortality across surgical, systemic treatment, and radiation therapy indications for seven of the most prevalent cancers, including breast cancer. ²⁰

Tragically, it predicted that among 1000 women awaiting breast cancer surgery, a delay of 4 weeks, 8 weeks and 12 weeks could result in a projected 10, 21 and 31 additional deaths respectively, (in addition to a baseline mortality of 12%). The same study estimated that surgical delay of 12 weeks for all patients with breast cancer over a year would lead to 500 excess deaths in Australia. 22

Breast cancer does not wait for COVID to end. Early diagnosis and access to care is critical to save lives.





¹⁵ Dinmohamed, A.G., Cellamare, M., Visser, O. et al. "The impact of the temporary suspension of national cancer screening programmes due to the COVID-19 epidemic on the diagnosis of breast and colorectal cancer in the Netherlands". J Hematol Oncol 13, 147 (2020).

¹⁶ https://www.bbc.com/news/health-54351262

¹⁷ Maringe C. et al., "The impact of the COVID-19 pandemic on cancer deaths due to delays in diagnosis in England, UK: a national, population-based, modelling study", Lancet Oncology, 2021, Jan;22(1):e5.

¹⁸ https://blogs.bmj.com/bmj/2020/11/05/counting-the-invisible-costs-of-covid-19-the-cancer-pandemic/

¹⁹ Luc te Marvelde, Rory Wolfe, Grant McArthur, Louis A Blake, Sue M Evans, "Decline in cancer pathology notifications during the 2020 COVID-19-related restrictions in Victoria", Med J Aust, Mar 2021; 214 (6): 281-283.

²⁰ Hanna, T. P. et al., "Mortality due to cancer treatment delay: systematic review and meta-analysis", British Medical Journal, 2020;371:m4087.

²¹ Ibid.

²² Ibid.

About RTAG

The Radiation Therapy Advisory Group (RTAG) is an alliance of cancer patient advocates, health care providers, medical technology vendors and oncology professionals who are aligned in their desire to raise the profile of radiation therapy.

Since its inception RTAG has focused on highlighting the lack of access to radiation therapy for many cancer patients in Australia, with RTAG members sharing a desire to raise the profile of radiation therapy and ensure it is appropriately funded by the Federal Government.

In the lead-up to the 2019 Federal Election, RTAG launched a national campaign called Radiation Therapy for Regional Australia. The campaign highlighted 13 regional communities that needed local access to radiation therapy, and engaged parliamentarians, advisers and bureaucrats. The campaign was successful, securing a \$63 million commitment from the Australian Government to build treatment centres in all 13 communities.

RTAG therefore has extensive experience providing highly-informed advice to government and to the general public about cancer, radiation therapy and associated health policy issues.



