Source details

Asia-Pacific Journal of Clinical Oncology

Scopus coverage years: from 2006 to Present
Publisher: Wiley-Blackwell
ISSN: 1743-7555 E-ISSN: 1743-7563
Subject area: Medicine: Oncology
Source type: Journal

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PUBLICATION TYPE	ISSN	COVERAGE	INFORMATION
Journals	17437555, 17437563	2006-2022	Homepage How to publish in this journal ajco.eo@wiley.com

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Asia–Pacific Journal of Clinical Oncology is a multidisciplinary journal of oncology that aims to be a forum for facilitating collaboration and exchanging information on what is happening in different countries of the Asia–Pacific region in relation to cancer treatment and care. The Journal is ideally positioned to receive publications that deal with diversity in cancer behavior, management and outcome related to ethnic, cultural, economic and other differences between populations. In addition to original articles, the Journal publishes reviews, editorials, letters to the Editor and short communications. Case reports are generally not considered for publication, only exceptional papers in which Editors find extraordinary oncological value may be considered for review. The Journal encourages clinical studies, particularly prospectively designed clinical trials.

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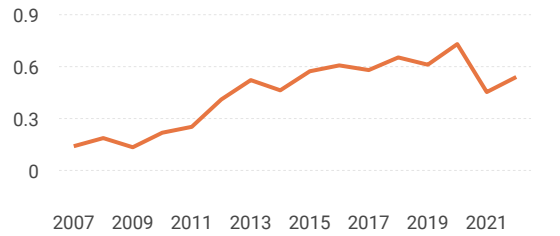

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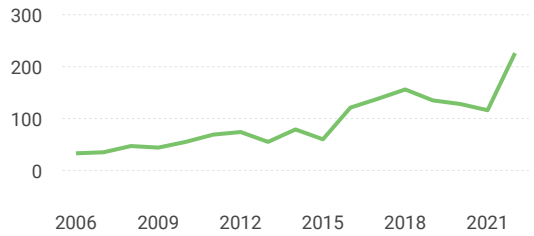

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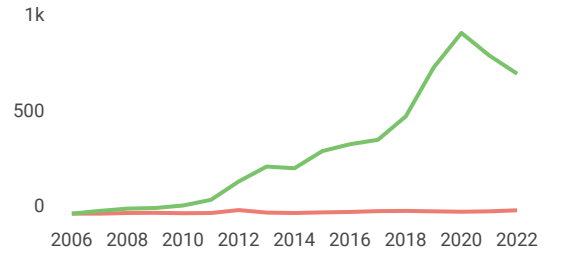

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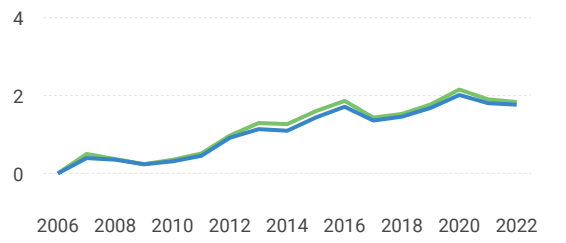

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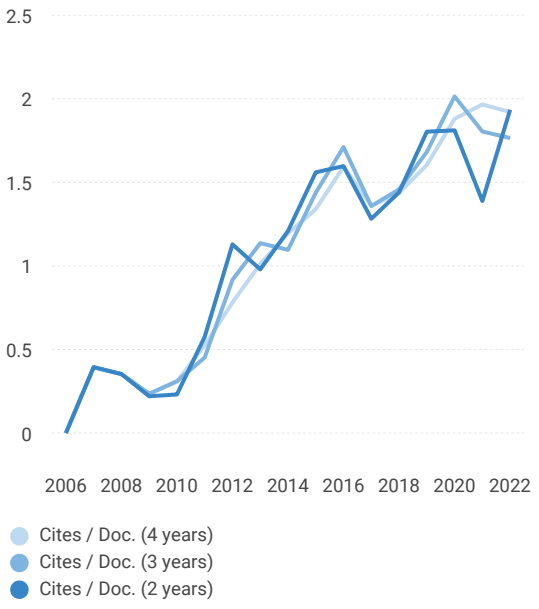

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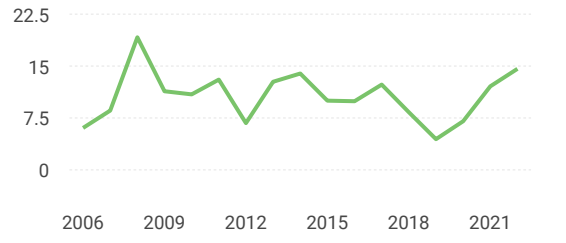

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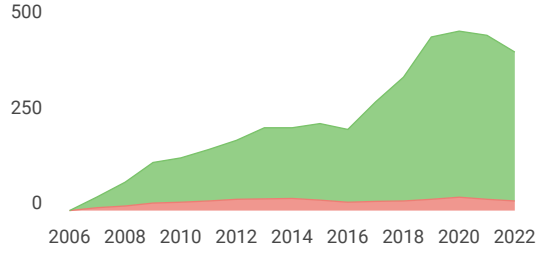

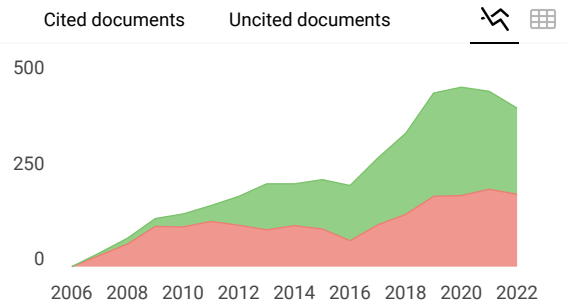

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ISSUE INFORMATION

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EDITORIAL

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Michael B. Jameson, Andrew R.L. Stevenson, Samuel Y. Ngan

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Pages: 493-505 | First Published: 24 January 2022

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Roles of Myc-associated zinc finger protein in malignant tumors

Chuanjun Zheng, Hongmei Wu, Song Jin, Di Li, Shengkui Tan, Xiaonian Zhu

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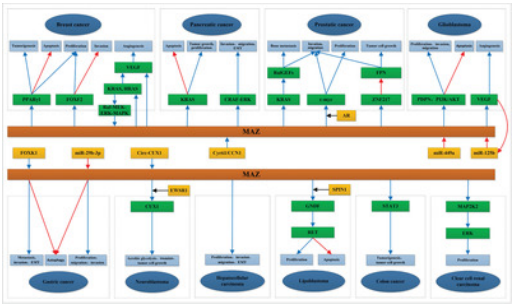

MAZ plays an important role in breast cancer, pancreatic cancer, prostate cancer, glioblastoma, gastric cancer, neuroblastoma, hepatocellular carcinoma, liposarcoma, colon cancer and clear cell renal carcinoma, by targeting PPARγ1, KRAS, HRAS, VEGF, FOXF2, c-myc, ZNF217, PDPN, CUX1, GNDF, STAT3 and MAP2K2. The underlying mechanisms include autophagy, angiogenesis, EMT, and microRNAs.

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The systemic management of central nervous system metastases and leptomeningeal disease from advanced lung, melanoma, and breast cancer with molecular drivers: An Australian perspective

Clare Senko, Ashray Gunjur, Adithya Balasubramanian, Hui K. Gan, Sagun Parakh, Lawrence Cher

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Prevention and management of acneiform rash associated with EGFR inhibitor therapy: A systematic review and meta-analysis

Mahdieh Gorji, Joseph Joseph, Nick Pavlakis, Saxon D. Smith

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We demonstrated that young-onset colorectal cancer represents unique features with a lower frequency of *APC* mutations and a higher frequency of mismatched repair gene mutations compared to the general population. One in ten Vietnamese patients with young-onset colorectal cancer would benefit from multigene testing for pathogenic germline mutation.

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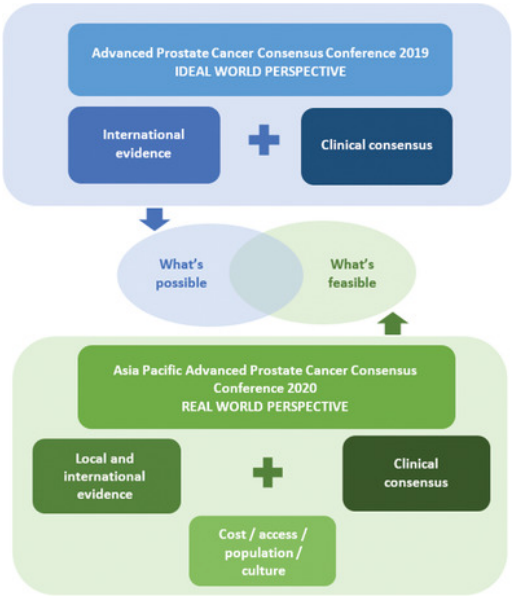
Managing advanced prostate cancer in the Asia Pacific region: "Real-world" application of Advanced Prostate Cancer Consensus Conference 2019 statements

Edmund Chiong, Declan G. Murphy, Nicholas C. Buchan, Melvin L. K. Chua, Lukman Hakim, Agus Rizal Hamid, Sung K. Hong, Lisa G. Horvath, Ravi Kanesvaran, Makarand Khochikar, Jason Letran, Bannakij Lojanapiwat, Rohan Malek, Anthony C. F. Ng, Nguyễn Tuấn Vinh, See-Tong Pang, Darren M. C. Poon, Teng Aik Ong, Marniza Saad, Kathryn Schubach, Ryoichi Shiroki, Levent Türkeri, Scott Williams, Alvin Wong, Dingwei Ye, ANZUP Cancer Trials Group , Ian D. Davis

Pages: 686-695 | First Published: 08 February 2022



The second Asia-Pacific Advanced Prostate Cancer Consensus Conference (APAC APCCC 2020) gathered insights into the real-world application in the Asia-Pacific (APAC) region of consensus statements from the 3rd Advanced Prostate Cancer Consensus Conference (APCCC 2019).

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Understanding mammographic breast density profile in China: A Sino-Australian comparative study of breast density using real-world data from cancer screening programs

Tong Li, Jing Li, Rob Heard, Ziba Gandomkar, Jiansong Ren, Min Dai, Patrick Brennan

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Clinical Oncology

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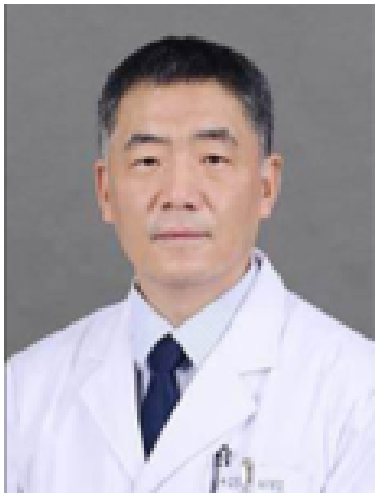

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Received: 28 July 2021 | Accepted: 27 September 2021 | Published on: 8 February 2022

DOI: 10.1111/ajco.13722

ORIGINAL ARTICLE

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Managing advanced prostate cancer in the Asia Pacific region: "Real-world" application of Advanced Prostate Cancer Consensus Conference 2019 statements

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Abstract

Aim: The second Asia-Pacific Advanced Prostate Cancer Consensus Conference (APAC APCCC 2020) gathered insights into the real-world application in the Asia-Pacific (APAC) region of consensus statements from the 3rd Advanced Prostate Cancer Consensus Conference (APCCC 2019).

Methods: The 4-h our virtual meeting in October 2020 brought together 26 experts from 14 APAC countries to discuss APCCC 2019 recommendations. Presentations were prerecorded and viewed prior to the meeting. A postmeeting survey gathered views on current practice.

Results: The meeting and survey highlighted several developments since APAC APCCC 2018. Increased access and use in the region of PSMA PET/CT imaging is providing additional diagnostic and staging information for advanced prostate cancer and influencing local and systemic therapy choices. Awareness of oligometastatic disease, although not clearly defined, is increasing. Novel androgen receptor pathway antagonists are expanding treatment options. Cost and access to contemporary treatments and technologies continue to be a significant factor influencing therapeutic decisions in the region. With treatment options increasing, multidisciplinary treatment planning, shared decision making, and informed choice remain critical. A discussion on the COVID-19 pandemic highlighted challenges for diagnosis, treatment, and clinical trials and new service delivery models that will continue beyond the pandemic.

Conclusion: APAC-specific prostate cancer research and data are important to ensure that treatment guidelines and recommendations reflect local populations and resources. Facilitated approaches to collaboration across the region such as that achieved through APAC APCCC meetings continue to be a valuable mechanism to ensure the relevance of consensus guidelines within the region.

KEYWORDS
Asia-Pacific, consensus, guideline, metastasis, prostate cancer

1 | INTRODUCTION

The second Asia-Pacific Advanced Prostate Cancer Consensus Conference (APAC APCCC 2020) was convened in October 2020 following the 2019 Advanced Prostate Cancer Consensus Conference (APCCC 2019).[1] APCCC recommendations take an "ideal-world" perspective with no resource constraints and where patients reflect trial populations. In the Asia-Pacific (APAC) region, populations often differ from "idealized" clinical trial populations, and resources vary. APAC APCCC meetings consider the real-world application of international consensus statements for the APAC region.

Advanced prostate cancer is a significant issue for the APAC region. Patients present with advanced disease at much higher rates than in the United States (50% vs. 10%),[2,3] driven by differences in ethnicity and access to screening, testing, and treatment.

Access to and reimbursement of imaging modalities, radiation therapy, systemic therapies, and genomic testing varies in the APAC region (Figure 1A–D). Some newer systemic therapies are more available in generic form in some APAC countries. The increased likelihood of systemic treatment toxicities among some Asian populations[4,5] also influences management.

2 | METHODS

APAC APCCC 2020 brought together 26 advanced prostate cancer experts from 14 APAC countries (Table 1). The 4-h virtual meeting was hosted by the Australian and New Zealand Urogenital and Prostate Cancer Trials Group (ANZUP). Panelist presentations on evidence, key issues, and APCCC 2019 recommendations were prerecorded and viewed prior to the meeting. A postmeeting electronic survey captured views on current practice (see Supplementary Data for survey responses).

APAC APCCC 2020 covered six topics most relevant for the APAC region:

- Management of locally advanced prostate cancer
- Management of the primary tumor in metastatic disease
- Management of newly diagnosed metastatic hormone-sensitive prostate cancer (mHSPC), including oligometastatic prostate cancer
- Management of nonmetastatic castration-resistant prostate cancer (CRPC)
- Management of metastatic CRPC sequencing
- Managing prostate cancer in a pandemic

3 | RESULTS

3.1 | Management of locally advanced prostate cancer

3.1.1 | Use of prostate-specific membrane antigen positron emission tomography/computed tomography

APCCC 2019 reported consensus for prostate-specific membrane antigen (PSMA) positron emission tomography (PET)/computed tomography (CT) imaging in patients with rising prostate-specific antigen (PSA) after radical radiation therapy to the prostate (80%) and radical prostatectomy (87%).

While the use of PSMA PET/CT is increasing in the APAC region, access and reimbursement varies (Figure 1A). APAC APCCC 2020 panelists discussed the influence of greater sensitivity of PSMA PET/CT compared with conventional imaging on treatment recommendations for locally advanced prostate cancer. The potential for under or overtreatment, depending on the interpretation of PSMA PET/CT findings, was noted.

3.1.2 | Local prostate-directed treatment for cN1M0 disease

APCCC 2019 reported strong consensus (98%) for radical locoregional treatment (radiation therapy or surgery) with or without systemic therapy for cN1 (pelvic lymph nodes) M0 prostate cancer (defined by conventional imaging).

APAC APCCC 2020 achieved consensus (92% of 26 panelists) for use of locoregional treatment as part of multimodal treatment for cN1M0 disease with consensus (83%) for use of radiation therapy. Panelists identified a range of factors influencing locoregional treatment choice (Box 1A), noting that systemic therapy improvements may influence future decision making.

Box 1: Considerations influencing the choice of local prostate-directed treatment (surgery/radiation therapy) for cN1M0 disease

- Primary tumor volume
- Likelihood of resection with a clear margin
- Number, size, and location of involved lymph nodes
- Patient age and performance status
- Requirement for pathology/genetic information to assist with treatment planning
- Whether cN1 disease is diagnosed de novo or after definitive prior therapy

B: Considerations influencing the decision to treat the primary tumor in low-risk/low-volume metastatic disease

- Local symptoms such as local obstruction (noting that these may resolve with systemic treatment, so review of local treatment is warranted after initial systemic therapy)
- Locally advanced disease
- Baseline PSA and/or PSA kinetics
- Variant histologies associated with reduced sensitivity to AR-directed therapies and have a poorer prognosis
- Performance status, frailty, and comorbidities

3.1.3 | Systemic treatment for cN1M0 disease

APCCC 2019 reported strong consensus (98%) for addition of systemic therapy to locoregional treatment with radiation therapy for patients with cN1M0 prostate cancer.

APAC APCCC 2020 panelists agreed with the addition of systemic therapy to locoregional treatment for node-positive prostate cancer. No consensus was reached on preferred systemic therapy (73% of 26 panelists use androgen-deprivation therapy [ADT] alone rather than in combination with abiraterone). Decisions about postprostatectomy systemic therapy in patients with node-positive disease are influenced by PSA levels. Patients with low-volume node-positive disease and undetectable PSA may be observed for biochemical recurrence.

Panelists noted the stronger evidence base for adjuvant systemic therapy in pN1 disease compared with cN1 disease and noted that neoadjuvant systemic treatment benefits have not yet been demonstrated in locally advanced disease.

3.2 | Management of the primary tumor in metastatic disease

APCCC 2019 reported strong consensus (98%) for overall survival benefit of local treatment of the primary tumor in low-volume/low-burden M1 disease.

Radiation therapy access in the APAC region (Figure 1C) influences choice of prostate-directed treatment in metastatic disease. In some low- and middle-income countries, lack of access to high-quality radiation therapy preferences surgery over radiation therapy, particularly

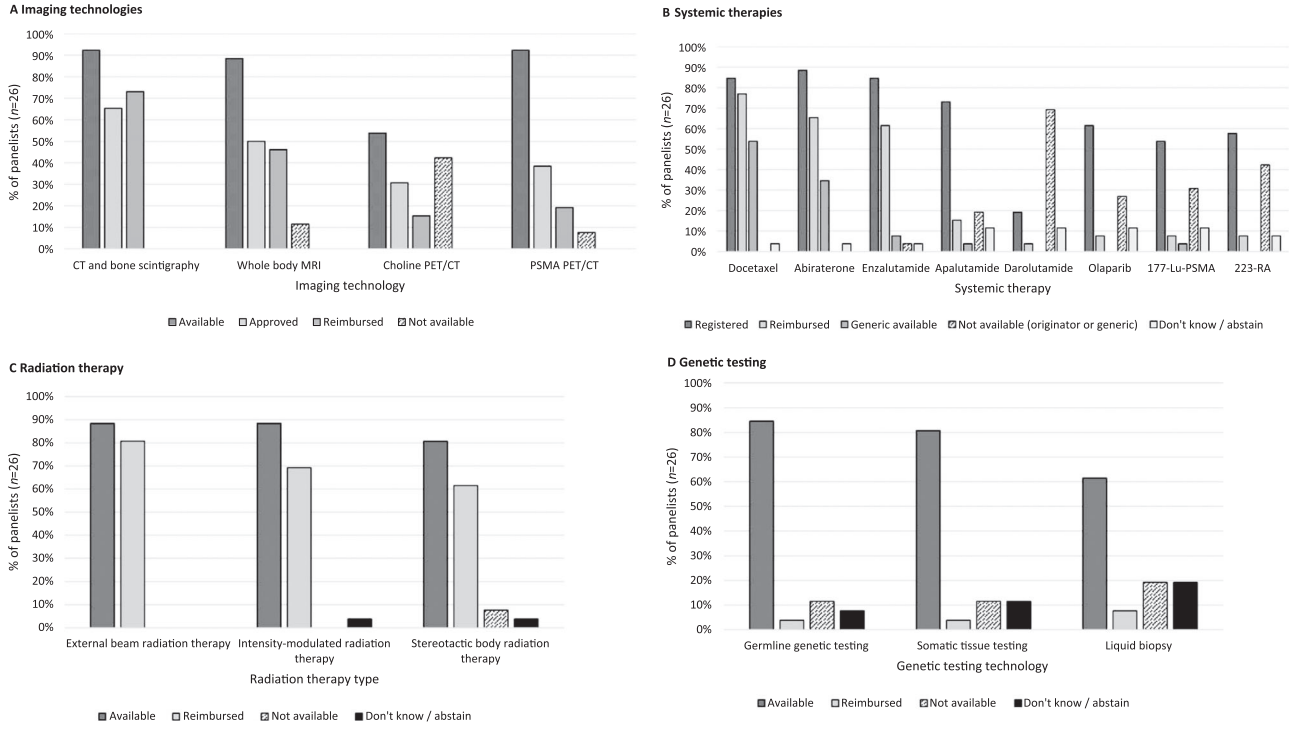

FIGURE 1 Access, approval, and reimbursement of technologies and treatments in the APAC region ($n = 26$).[a] (A) Imaging technologies, (B) systemic therapies, (C) radiation therapy, and (D) genetic testing. Abbreviations: CT, computed tomography; Lu, Lutetium; MRI, magnetic resonance imaging; PET, positron emission tomography; PSMA, prostate-specific membrane antigen; RA, radium. [a]Question was asked based on availability in each panelist's country, but some responses suggest that panelists replied on the basis of availability at their institution

TABLE 1 APAC APCCC 2020 panelists and survey respondents: disciplines and countries ($n = 26$)

	Urology	Uro-oncology	Medical oncology	Radiation oncology	Clinical oncology	Hematology /oncology	Nursing
Australia	1		2	1			1
China[a]	1						
Hong Kong	1				1		
India		1					
Indonesia	1	1					
Japan	1						
Korea	1						
Malaysia	2				1		
New Zealand	1						
Philippines	1						
Singapore	1		1	1		1	
Taiwan	1						
Thailand	1						
Turkey		1					
Vietnam	1						
Total	14	3	3	2	2	1	1

[a]Survey response only.

in patients with low-volume/low-burden M1 disease. Healthcare reimbursement policies also influence treatment decisions. Type of radiation therapy depends on available technologies, with use of stereotactic body radiation therapy (SBRT), and ultra-hypofractionation limited across the region.[6]

3.2.1 | Criteria influencing the decision to treat the primary tumor

Factors influencing APAC APCCC 2020 panelist decisions to treat the primary tumor in patients with low-volume disease are listed in Box 1B. Local treatment of the primary tumor may be considered in patients with high-volume disease where the only evidence of progression is within the prostate.

APAC APCCC 2020 panelists highlighted that choice of imaging modality can influence decision making. This mirrors the APCCC 2019 view that low-volume states on conventional and novel imaging are likely to differ clinically. APAC APCCC 2020 panelists agreed that a consistent definition of low disease burden would be useful. The most common definition (73% of 26 panelists) is disease that does not meet the CHAARTED criteria for high-volume disease (≥4 bone metastases with ≥1 beyond the axial skeleton or visceral metastases).[7]

3.2.2 | Selection of local prostate-directed treatment in low-burden/low-volume M1 prostate cancer

APCCC 2019 reported consensus (84%) for radiation therapy as local treatment for low-volume/low-burden M1 castration-sensitive/naive prostate cancer. Consensus (75%) was also reported for including primary and pelvic lymph nodes in radiation therapy of the primary tumor in newly diagnosed low-volume/low-burden M1 castration-sensitive/naive prostate cancer and clinical pelvic N1 disease.

APAC APCCC 2020 panelists agreed with radiation therapy use in patients with low-burden/low-volume M1 disease, noting that the use of surgery should be restricted to clinical trials. The heterogeneity of radiation therapy mode, dose, and fractionation was discussed, with a preference for fewer fractions of higher dose radiation or SBRT (where available) to limit hospital visits, particularly during the COVID-19 pandemic. Views differed on the role of SBRT in high-volume tumors with some panelists concerned about the risk of normal tissue toxicity and justification for palliative SBRT use.

3.3 | Management of newly diagnosed mHSPC, including oligometastatic disease

3.3.1 | Management of mHSPC

APCCC 2019 reported consensus (81%) not to combine docetaxel, an androgen receptor (AR) pathway inhibitor and ADT for newly diagnosed mHSPC. No consensus was reached on the use of high-/low-volume or high-/low-risk to guide systemic treatment in addition to ADT.

APAC APCCC 2020 panelists noted that the use and choice of an additional systemic agent with ADT in patients with mHSPC depends on treatment availability and reimbursement, disease extent, and patient factors (including potential for chemotherapy-induced toxicity, age, comorbidities, and patient preference). Docetaxel may be used instead of an AR pathway inhibitor when access and cost are barriers. In some APAC countries, an AR pathway inhibitor plus ADT is used instead of docetaxel because of the higher risk of chemotherapy-related toxicity among Asian populations and patient concerns about chemotherapy.

Around two-thirds of APAC APCCC 2020 panelists (65% of 26 panelists) indicated that they would not add docetaxel to ADT in patients with low-volume disease (de novo or metachronous metastases). Almost one quarter (23%) would consider adding docetaxel in people with low-volume disease only if they had de novo metastases.

APCCC 2019 reported consensus (78%) for no additional imaging modalities in newly diagnosed high-volume mHSPC (based on CT and bone scan). No consensus was reached on additional imaging modalities in newly diagnosed low-volume mHSPC (based on CT and bone scan).

APAC APCCC 2020 panelists agreed that the use of PSMA PET/CT is unlikely to change treatment recommendations if conventional imaging has identified high-volume mHSPC. PSMA PET/CT is likely to be more useful to confirm disease extent in patients with mHSPC for whom conventional imaging has identified low-volume disease.

3.3.2 | Management of oligometastatic prostate cancer

The concept of oligometastatic disease has emerged more strongly since APCCC 2017 and APAC APCCC 2018. However, oligometastatic disease is still not clearly defined.

At APCCC 2019, no consensus was reached on the number of metastases or location (bone, lymph nodes, viscera, and lung) of metastases that qualify as oligometastatic disease. Consensus (79%) was reported that CT and bone scan are not sufficient to define an oligometastatic state for treatment planning. Consensus (75%) was also reported for use of PSMA PET/CT or MRI to confirm a diagnosis of metachronous oligometastatic prostate cancer if detected on CT and bone scan.

No consensus was reached at APAC APCCC 2020 on the number of metastases that qualify as oligometastatic disease. Seventy-three percent of 26 panelists indicated that imaging by CT and bone scintigraphy is not sufficient to define the oligometastatic state for treatment planning. Almost all survey respondents (96% of 26 panelists) indicated that, if available, they would undertake additional imaging with PSMA PET/CT to confirm oligometastatic disease identified on conventional imaging.

Consensus was reached at APAC APCCC 2020 (77% of 26 panelists) for the need to distinguish de novo treatment-naïve (synchronous) oligometastatic prostate cancer from oligometastatic prostate cancer recurring after an initial diagnosis of M0 disease (metachronous metastases). There was also consensus that, in untreated de novo oligometastatic prostate cancer, it is important to distinguish lymph

node-only disease (including distant lymph node metastases) from disease that includes metastatic lesions at other sites (81% of 26 panelists).

APAC APCCC 2020 panelists discussed the difficulty of obtaining a differential diagnosis between true oligometastatic disease and metastatic disease that is not yet evident, and the impact of this on decision making about local prostate-directed treatment. It was suggested that including time since diagnosis in the definition of oligometastatic disease can increase confidence in identifying disease that may be amendable to radical therapy, with time allowing subclinical metastases to become evident.

APAC APCCC 2020 panelists discussed the use of treatment to the primary/metastases to manage symptoms, improve quality of life, and slow disease progression in patients with low metastatic burden. Data from STAMPEDE were referenced, showing that local prostate-directed treatment in metastatic disease affects progression-free and overall survival but not metastasis.[8] In the subgroup analysis, overall survival advantage was observed in patients with low-volume metastatic disease.

At APCCC 2019, consensus was almost reached (74%) for use of systemic therapy plus local prostate-directed therapy of all lesions in metachronous oligometastatic prostate cancer.

No consensus was reached among APAC APCCC 2020 panelists about preferred treatments for de novo synchronous or metachronous oligometastatic prostate cancer. Responses to the postmeeting survey reflect a range of treatment goals and combinations (Table 2A–E). Panelists noted European Association of Urology and National Comprehensive Cancer Network guideline recommendations[9,10] about the use of radiation therapy to treat the primary tumor in oligometastatic disease and agreed that surgery should be considered investigational in this setting. The potential for phase II trials to provide further information on the role of metastasis-directed therapy in patients with oligometastatic disease was discussed.[11–14]

3.4 | Management of nonmetastatic (M0) CRPC

APAC APCCC 2020 panelists reflected on the potential for PSMA PET/CT to change a diagnosis from M0CRPC (diagnosed using conventional imaging) to M1 metastatic CRPC (mCRPC). The high likelihood of PSMA PET/CT detecting metastases in patients at high risk of progression was noted.

Panelists agreed that additional information from PSMA PET/CT is unlikely to change treatment recommendations or outcomes for most patients with M0CRPC if newer AR pathway inhibitors are available. However, in countries where novel agents are not available, PSMA PET/CT may provide information to inform metastasis-directed therapy or local prostate-directed therapy. A change in diagnosis from M0CRPC to mCRPC can increase access to AR pathway inhibitors in countries where these agents are not indicated/reimbursed for M0CRPC disease.

APCCC 2019 reported consensus (86%) for use of an AR antagonist (apalutamide, enzalutamide, and darolutamide) as the preferred choice of treatment in addition to ADT in M0CRPC with PSA≥2 mg/mL and PSA doubling time ≤10 months. Consensus was also reported (86%) for not extrapolating data from ARAMIS, PROSPER, and SPARTAN to M0CRPC with a PSA doubling time > 10 months.

APAC APCCC 2020 panelists discussed whether the cost and potential side effects of novel AR antagonists can be justified in asymptomatic patients with M0CRPC, noting the need to balance these issues with effects on symptoms and survival. Panelists agreed that data on novel AR pathway inhibitors should not be extrapolated to abiraterone to address the high cost of novel therapies. Concerns about side effects of long-term steroid use with abiraterone were also noted. However, two-thirds of APAC APCCC 2020 panelists (65% of 26 survey respondents) indicated that they would consider using abiraterone for treatment of M0CRPC to address issues of access and cost of novel AR antagonists. Some panelists also consider older therapies (bicalutamide, nilutamide, fosfestrol, diethylstilbestrol, finasteride/dutasteride, and dexamethasone) when access and cost are an issue. It was noted that the use of older agents should be limited to patients with M0CRPC with a longer PSA doubling time (> 10 months).

3.5 | Sequencing of therapies in mCRPC

A range of treatment options are available for mCRPC, including second-, third-, and fourth-line options, influenced by local regulatory restrictions.[9,10] In some APAC countries, access and cost issues increase reliance on older drugs or cheaper drugs in the same treatment category. Increased toxicity risk also limits chemotherapy use in some Asian patients. This may result in use of an AR pathway inhibitor instead of switching to docetaxel or another type of chemotherapy. Again, some panelists highlighted that access and cost issues mean older therapies are still used despite limited evidence of benefit.

APAC APCCC 2020 panelists discussed factors influencing treatment sequencing decisions in patients with mCRPC, noting that PSA doubling time alone is insufficient for decision making. Other factors indicative of clinical progression, such as changes in imaging and symptoms, and type, duration, and response to previous treatments, should be considered.

No consensus was reached at APCCC 2019 about switching to enzalutamide when disease progresses on abiraterone or vice versa.

APAC APCCC 2020 panelists reflected on the high degree of AR pathway inhibitor cross-resistance, noting little benefit in switching to another AR pathway inhibitor following disease progression on an AR pathway inhibitor. Panelists noted that switching from abiraterone to enzalutamide generally has a higher probability of PSA response than vice versa. However, there is no high-level evidence to substantiate this practice, with the only data from a single, randomized, phase II trial.[15]

Steroid dosage should be tapered when discontinuing abiraterone, with an associated increased risk of diabetes. Panelists noted that the higher risk of diabetes among some Asian populations means additional caution is needed for these patients.

Use of ^{177}Lu-PSMA was discussed. Panelists noted that cost (including the cost of pretreatment imaging and follow-up) is a key factor

TABLE 2 APAC APCCC views on management of oligometastatic disease ($n = 26$)

A) Treatment goal when recommending local treatment of all lesions instead of systemic therapy in oligometastatic prostate cancer			B) Treatment goal when recommending adding local treatment of all lesions to systemic treatment in oligometastatic prostate cancer		
Goal	**%**	***N***	**Goal**	**%**	***N***
Delay start of ADT	8%	2	Prolong progression-free survival	23%	6
Prolong progression-free survival	12%	3	Prolong overall survival	12%	3
Prolong overall survival	4%	1	Prolong both progression-free and overall survival	50%	13
All three of the above	50%	13	Cure	0%	0
Cure	0%	0	None of the above	0%	0
None of the above	4%	1	I do not recommend local treatment of all lesions in oligometastatic prostate cancer	12%	3
I do not recommend local treatment of all lesions in oligometastatic prostate cancer	19%	5	Abstain	4%	1
Abstain	4%	1			
C) Treatment recommended for majority of patients with synchronous oligometastatic prostate cancer (based on conventional imaging) with an untreated primary tumor			**D) Treatment recommended for the majority of patients with newly diagnosed oligometastatic prostate cancer on novel imaging (but no metastases on conventional imaging) with an untreated primary tumor**		
Treatment	**%**	***N***	**Treatment**	**%**	***N***
Systemic therapy only	4%	1	Systemic therapy only	8%	2
Systemic therapy plus treatment of the primary tumor	62%	16	Local/regional therapy only	4%	1
Systemic therapy plus treatment of the primary tumor and focal treatment of all lesions	27%	7	Systemic therapy plus treatment of the primary tumor	39%	10
Treatment of the primary tumor and focal treatment of all lesions without systemic therapy	4%	1	Systemic therapy plus treatment of the primary tumor and focal treatment of all lesions	44%	11
Abstain	4%	1	Treatment of the primary tumor and focal treatment of all lesions without systemic therapy	4%	1
			Abstain	4%	1
E) Treatment recommended for the majority of patients with oligorecurrent (metachronous) oligometastatic prostate cancer					
Treatment	**%**	***N***			
Systemic therapy alone	38%	10			
Systemic therapy and local treatment of all lesions	58%	15			
Abstain	4%	1			

influencing use. Examples were cited of patients self-funding treatment, even when ^{177}Lu-PSMA therapy is not recommended. Panelists agreed that ^{177}Lu-PSMA should only be considered as a last line of treatment when all approved options have been exhausted. The challenge of managing patient expectations about new treatments and not offering treatment based only on an individual's ability to self-fund was highlighted.

Panelists reflected on access and cost in the APAC region of sequencing, genetic testing, and access to biomarker-based therapies, such as olaparib. It was suggested that biomarker testing is limited to patients whose disease progresses after multiple treatment lines.

3.6 | Managing prostate cancer in a pandemic

APAC APCCC 2020 included discussion about the impact of COVID-19 on prostate cancer clinical care and research in the region. Concern has been raised about the impact of the pandemic on cancer diagnosis and treatment, due to diversion of resources for pandemic

TABLE 3 Impact of COVID-19 on prostate cancer management and research in APAC countries ($n = 26$)

	No noticeable issue		Some effect		Significant issue		Don't know/abstain	
Impact	%	N	%	N	%	N	%	N
Fewer new patients presenting for diagnosis	8%	2	65%	17	23%	6	4%	1
Fewer patients presenting for follow-up appointments	4%	1	54%	14	38%	10	4%	1
Postponed/cancelled diagnostic services	19%	5	54%	14	23%	6	4%	1
Postponed/cancelled treatment services–surgery	19%	5	46%	12	23%	6	12%	3
Postponed/cancelled treatment services–radiation therapy	19%	5	42%	11	15%	4	23%	6
Fewer patients accessing support services	15%	4	46%	12	27%	7	12%	3
Less access to imaging technologies	35%	9	54%	14	4%	1	8%	2
Change in systemic therapy regimen	28%	7	54%	14	12%	3	12%	3
Delayed/postponed clinical trial recruitment	12%	3	38%	10	42%	11	8%	2

management, health service protocols to minimize transmission risk, and public concern about accessing health services.[16,17] Clinical trial activity has also been affected, with some clinical trials suspended.[18,19]

APAC APCCC panelists highlighted a range of impacts of COVID-19 on prostate cancer management (Table 3) including:

- fewer patients presenting for diagnosis, follow-up, and support, with concern expressed about the impact on delayed diagnosis
- postponement or cancellation of diagnostic and treatment services
- changes to systemic treatment regimens (e.g., reduced use of treatments with a potential impact on immunity and use of longer acting treatments to limit hospital visits)
- delayed or postponed clinical trials
- changes in planning and delivery of prostate cancer care, including increased use of telehealth and home delivery of medications by pharmacies

Panelists highlighted the value of rapid prostate cancer guidelines during the pandemic,[20,21] and reflected on how long services should expect to be working under revised guidelines. Reference was made to the importance of local treatment in locally advanced and low-volume metastatic disease and how long such treatment should be postponed as the pandemic continues.

Panelists noted that changes in service delivery, such as the use of telehealth, are likely to continue beyond the pandemic and will be useful alongside face-to-face consultations.

4 | DISCUSSION

APAC APCCC 2020 was convened to review how ideal-world consensus recommendations from APCCC 2019 apply in everyday practice in the APAC region. Discussion focused on five issues most relevant to the APAC region with an additional discussion on the impact of COVID-19 on prostate cancer management in the region. Insights were gathered from a real-world perspective to better understand practical considerations in the APAC region for management of advanced prostate cancer.

A number of themes from APAC APCCC 2020 are consistent with APAC APCCC 2018.[22] Differences in access to and cost of therapeutic agents and imaging technologies (including availability of generic products) influence management and treatment choices. The toxicity profile of chemotherapy among some Asian populations also influences treatment. Later stage at diagnosis of prostate cancer is an issue among some Asian populations, and there is a risk this will be exacerbated by the COVID-19 pandemic.

Panelist views highlight some differences in practice compared with APCCC 2019 consensus recommendations and some differences within the region. Such differences reflect evolving evidence and the influence on practice of resource constraints.

A key theme was the rapidly evolving role of novel imaging (PSMA PET/CT). APAC APCCC 2020 panelists agreed that, in an ideal-world scenario (disregarding cost and access issues), PSMA PET/CT would be the first choice of imaging modality for patients with suspected metastatic disease. However, access and reimbursement limitations currently restrict use. While almost all 26 panelists (92%) indicated that PSMA PET/CT is available in their country, only 38% indicated approval for use in advanced prostate cancer and only 19% indicated that it is reimbursed for this indication.

PSMA PET/CT is changing definitions of staging, with clear differences compared with conventional imaging. APAC APCCC 2020 panelists noted the need to understand the impact of PSMA PET/CT staging on disease management and whether this translates into improved patient outcomes. The significance of low-volume disease diagnosed using conventional imaging that has a high-volume pattern on PSMA PET/CT is unknown. Preferred uses by APAC APCCC 2020 panelists for PSMA PET/CT (where available) included diagnosis and staging of high-risk clinically localized prostate cancer, to confirm low-volume metastatic disease diagnosed on conventional imaging, and to resolve discordant findings, such as high PSA with no evidence of metastasis on conventional imaging.

Recognition of the concept of oligometastatic disease and biological differences between de novo and metachronous metastatic disease has increased since APAC APCCC 2018. However, there is still no consensus on a clear definition for oligometastatic disease.

The role of novel systemic and radiation treatments also featured in discussions, particularly in relation to low-volume mHSPC and M0CRPC. Variability in access and cost of treatments across the APAC region continues to influence treatment choices.

A common theme was the importance of multidisciplinary management of advanced prostate cancer. Panelists also emphasized the importance of shared decision making with patients noting the need for informed choice underpinned by clear communication about benefits, risks, and costs of available treatment options. Areas requiring careful communication included:

- the distinction between "life-extending treatment" and "curative treatment"
- the risk of systemic treatment side effects in asymptomatic patients
- the significant level of "PSA anxiety" that exists for patients
- the complexity of explaining how differences between PSMA PET/CT and conventional imaging findings may influence treatment options

Areas of nonconsensus at APCCC meetings often reflect emerging evidence. Examples at APAC APCCC 2020 included:

- the lack of a consistent definition of "low disease burden" in the metastatic setting
- the need for clarity in the definition of M0CRPC
- the impact of newer radiation therapy techniques such as SBRT on outcomes for patients with locally advanced (cT3/4 and/or cN1) or metastatic disease
- the evolving field of biomarker testing in identifying treatment targets in metastatic disease

APAC APCCC 2020 was conducted against the backdrop of a global pandemic. Panelists described effects on clinical service delivery and clinical trials and highlighted the likely longer term impact on stage at diagnosis and outcomes. Postpandemic implications for service delivery were discussed, including standardization of telehealth and sense-checking the number and frequency of hospital visits for clinical trials.

APAC APCCC 2020 was the second region-wide meeting to discuss management of advanced prostate cancer. The value of shared insights and collaboration across the region were once again apparent, with an ongoing commitment to translating innovations in technologies and treatments into improved outcomes for men with advanced prostate cancer across the region.

ACKNOWLEDGMENTS

The authors gratefully acknowledge the support from Silke Gillessen and Aurelius Omlin for the concept of the APAC APCCC 2020 meeting. Our sincere thanks go to the Australian and New Zealand Urogenital and Prostate (ANZUP) Cancer Trials Group for hosting and coordinating the meeting, with particular thanks to Margaret McJannett and Nicole Tankard for their input. We also thank Alison Evans for her assistance in manuscript preparation.

We acknowledge sponsorship from Astellas, AstraZeneca, Bayer, and Janssen. Sponsors did not contribute to the APAC APCCC 2020 discussions and were not involved in the development or review of this manuscript.

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of the article at the publisher's website.

How to cite this article: Chiong E, Murphy D-H, Buchan N. C, Chua M. L. K et al. Managing advanced prostate cancer in the Asia Pacific region: "Real-world" application of Advanced Prostate Cancer Consensus Conference 2019 statements. *Asia-Pac J Clin Oncol*. 2022;18:686–695. https://doi.org/10.1111/ajco.13722