



JB I ADELAIDE

GRADE

CENTRE

JB I ADELAIDE GRADE CENTRE

2021 Annual Report

MESSAGE FROM THE CENTRE DIRECTOR

It is my pleasure to introduce you to the 2021 report for the JBI Adelaide GRADE Centre. The past two years have been particularly challenging for clinicians, researchers, university staff and educators, so firstly I want to acknowledge the tremendous work and achievements of our staff and members despite the incredibly trying circumstances you have all faced. I once again present this report with overwhelming gratitude for the efforts of all of our staff and members across Australia and the JBI Collaboration. Together we have once again collectively trained many people across our network in GRADE methods, systematic reviews, guidelines and evidence-based healthcare. We have consolidated our online training via zoom and updated our training materials in line with GRADE methodological advancements. We have supported a range of systematic reviewers and guideline developers with GRADE and continued to promote GRADE across Australia and the JBI Collaboration.

This report highlights many of the outputs and achievements of our centre for 2021. I would particularly like to mention the work of our journal (JBI Evidence Synthesis) staff, who have facilitated (for the first time) full uptake of GRADE Summary of Findings tables in JBI reviews of effectiveness. This demonstrates that using GRADE is now the norm rather than the exception across the JBI Collaboration. This can also be attributed to our educational efforts and the expanded GRADE section in our Comprehensive Systematic Review Training Program, which has been delivered to 1200+ international participants in 2021.

Once again, we missed the opportunity to meet with fellow GRADE members in person at the meetings of the GRADE Working Group. However, the online meetings have allowed for greater participation from JBI Adelaide GRADE members, with more members able to attend via online options than they may have been able to if travel was required. The move to online events internationally enabled JBI Adelaide GRADE staff to provide many presentations on guideline development and GRADE, including at JBI webinars, GIN webinars, the GIN conference and for various other initiatives and groups.

One of our major events of the year was Engaging Evidence in November 2021, where we partnered with Cochrane Australia, GIN ANZ, the Melbourne GRADE Centre and JBI to hold a regional conference on all things evidence. This event was a great success and our centre staff were pleased to present some of their methodological work.

Our consultancy and methodological support work with guideline development groups in Australia is a steady stream of work for our Centre. Our Centre staff and members also continue to engage with the GRADE Working Group project groups, with all Centre staff contributing to one or more of these groups and helping to advance GRADE approaches. This year, centre staff contributed as authors on GRADE papers relating to rapid reviews and prognosis. Centre staff also joined related international working groups, including the eCOVID-19 Recommendations and Gateway to Contextualization initiative (<https://covid19.remap.org/>) and the COVID-19 Evidence Network to support Decision-making (<https://www.mcmasterforum.org/networks/covid-end>). Centre staff are also actively engaged in many other networks and groups, including the Guidelines International Network.

As always, I am immensely proud of the accomplishments of our team. I would like to take this opportunity to thank all of our staff, members, students, the GRADE Guidance Group and the GRADE Working Group for their support in another challenging year globally.



Zachary Munn
JBI Adelaide GRADE Centre Director

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INTRODUCTION

The JBI Adelaide GRADE Centre, established in November 2016, was the first GRADE centre in Australia and New Zealand and has acted as a central hub of GRADE related research and teaching in the region.

In addition, it was the first GRADE Centre to be established within the JBI Collaboration, and as such supports and promotes the use of GRADE amongst this global network. The centre offers training in GRADE methods, methodological review of guidelines following GRADE methods, and contributes to the scientific development of GRADE methods, focusing on promoting the use of GRADE for systematic reviews and guideline development. For more information, visit <https://jbi.global/grade>.

This report outlines the activities of the Centre during its fifth full year of operation in 2021.



SUMMARY OF FINDINGS TABLES IN JBI SYSTEMATIC REVIEWS

GRADE Summary of Findings (SoF) tables are a requirement for JBI reviews of interventions and are recommended for other types of JBI reviews in our official journal, JBI Evidence Synthesis. Previously, we have never achieved 100% compliance with using GRADE in our systematic reviews of interventions.

As can be seen in Table 1, 100% of reviews assessing the effectiveness of interventions published in the journal in 2021 have GRADE SoF tables. This is a fantastic achievement and one we have been working towards since making the decision to adopt GRADE in JBI reviews over 6 years ago. Encouragingly, we also see 100% of diagnostic test accuracy reviews reporting GRADE.

Review Type	Reviews published in 2021 (n)	Reviews published in 2021 that included a GRADE SoF Table	
		n	%
Measurement	1	1	100%
Mixed	0	0	0%
Prevalence	0	0	0%
Prognostic	0	0	0%
Risk & Etiology	2	0	0%
Diagnostic Test Accuracy	2	2	100%
Qual	6	0	0%
Effectiveness	8	8	100%
Umbrella	1	0	0%
Total Reviews	20	11	55%

In addition to achieving this milestone, the JBI Evidence Synthesis editorial team continues to offer opportunity for GRADE SoF tables in an interactive format (iSoF), where appropriate. The interactive version of GRADE SoF tables presents key information from systematic reviews in several formats that vary in content and graphical layout. Four JBI reviews with GRADE now also have an iSoF.

- Interventions including a nutrition component aimed at managing gestational weight gain or postpartum weight retention: a systematic review and meta-analysis https://journals.lww.com/jbisrir/Abstract/2019/03000/Interventions_including_a_nutrition_component.7.aspx
- Impact of mobile health (mHealth) interventions during the perinatal period for mothers in low- and middle-income countries: a systematic review https://journals.lww.com/jbisrir/Abstract/2019/08000/Impact_of_mobile_health_mHealth_interventions.13.aspx
- Effects of flavonoid-rich fruits on hypertension in adults: a systematic review https://journals.lww.com/jbisrir/Abstract/2019/10000/Effects_of_flavonoid_rich_fruits_on_hypertension.6.aspx
- Impact of mobile health interventions during the perinatal period on maternal psychosocial outcomes: a systematic review https://journals.lww.com/jbisrir/Abstract/2020/01000/Impact_of_mobile_health_interventions_during_the.2.aspx

Table 1: Total Systematic reviews published and percentage of Summary of Findings tables 2021

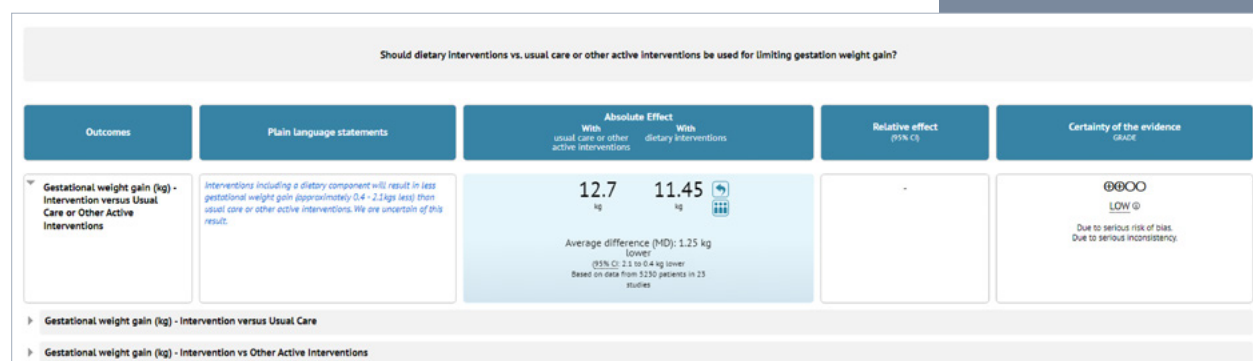


Figure 1: The iSoF tables are linked from the standard SoF and contents of a systematic review

In 2021 we began a collaboration with the Vector Control & Insecticide Resistance Unit within the Global Malaria Programme of the **World Health Organisation**.



USING GRADE IN GUIDELINES, SYSTEMATIC REVIEWS AND HEALTH TECHNOLOGY ASSESSMENTS

GRADE Centre members are actively using GRADE methods in guidelines and systematic reviews, including as GRADE methodologists. Selected highlights from 2021 include projects for various guideline groups, including Society of Obstetric Medicine of Australia and New Zealand, St Vincent's Hospital, Flinders University and collaborations for developing guidelines for fetal alcohol spectrum disorder and whiplash, amongst others.

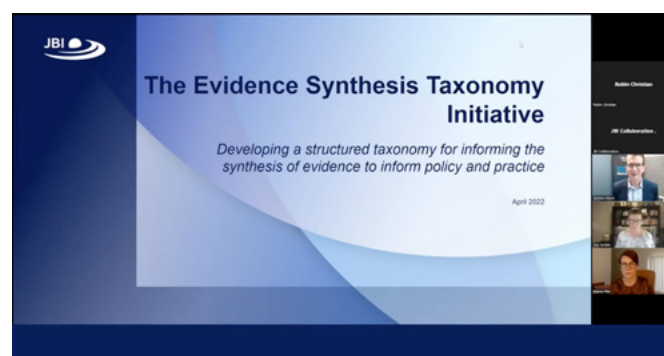
In 2021 we began a collaboration with the Vector Control & Insecticide Resistance Unit within the Global Malaria Programme of the World Health Organisation.

The project consists of three systematic reviews focusing on various aspects of residual insecticide surface treatment as a measure to prevent malaria. This work is ongoing and will take us late into 2022, with the potential for additional projects following the completion of the current work. We have recently been commissioned to conduct a review on insecticide treated nets by the same group.

In terms of consultancy work, we continue to act as methodologists and advisors for a number of guideline development projects. Currently we are supporting the following groups/projects for their guideline development:

1. Australian Extracorporeal Membrane Oxygenation Guidelines
2. Australian Fetal Alcohol Spectrum Disorder Diagnostic Criteria Guidelines
3. Society of Obstetric Medicine of Australia and New Zealand Hypertension in Pregnancy Guidelines
4. Australian recommendations for older adults' physical activity and sedentary behaviour during hospitalisation for an acute medical illness
5. Australian Whiplash Guidelines

We are involved in the Canadian Institutes for Health Research funded project COVID-19 Living Evidence and Recommendations (Co-Investigator, Zachary Munn). <https://covid19.recmap.org/>



THE EVIDENCE SYNTHESIS TAXONOMY INITIATIVE

In line with our focus on EBHC scholarly work and development, an NHMRC investigator Grant was formally began at the start of 2021 to advance the science of evidence synthesis. This was approved towards the end of 2020, with funding being awarded to JBI of \$645,205.00 over 5 years.

This project is envisaged as a collaborative initiative with key stakeholders across many scientific fields to establish an online, interactive and scalable evidence synthesis taxonomy in the form of an online wiki. A significant amount of meta-research (including scoping reviews), surveys, validation studies and Delphi approaches will be required to determine the current approaches, methodologies and methods in the field of evidence synthesis and to generate a taxonomy for guidance purposes.

TEACHING REPORT

In Australia, New Zealand and across the JBI Collaboration, JBI Adelaide GRADE staff and members conduct workshops on GRADE using the JBI Adelaide GRADE teaching materials which have been developed by Centre staff. These teaching and training activities serve as a way to promote the use of GRADE across Australia and New Zealand. These materials are regularly reviewed and updated by centre members.

A brief summary of our training activities during 2021, including the number of participants registered, is included below.

ADELAIDE TRAINING HIGHLIGHTS

- 2 external 1-day workshops (total of 44 participants)
- 1 Internal workshop for JBI/University of Adelaide Students (24 participants)
- Guideline implementation presentation for Stellenbosch University, South Africa
- 2 Workshops for University of Melbourne, Australia (April and September)

SYSTEMATIC REVIEW TRAINING (INCLUDING GRADE)

In addition to the dedicated GRADE training mentioned above, a GRADE module has been incorporated into the JBI Comprehensive Systematic Review Training Program. In 2021, 45 of our centres hosted courses across the globe (including in Australia, Brazil, Cameroon, Canada, Denmark, England, Ethiopia, Japan, Kenya, Myanmar, Portugal, China, Scotland, Singapore, South Africa, Switzerland, Taiwan, Thailand, USA) with 1249 participants, all who were introduced to GRADE methods.

INGUIDE

GRADE Centre Director Zachary Munn also contributed voiceovers for INGUIDE and to in person webinars during 2021. INGUIDE is a comprehensive, evidence-based, and up-to-date training program for guideline recommendation and development.

It is the product of a joint partnership between leaders in the field of guideline development - [Guidelines International Network \(G-I-N\)](#), a global network of guideline producing organizations and guideline participants, and world-renowned experts in guideline research, development and implementation at [McMaster University's Department of Health Research Methods, Evidence, and Impact](#). JBI Adelaide GRADE Centre staff are now planning to undertake the INGUIDE program.



METHODOLOGICAL AND SCHOLARLY PROJECT WORK

The JBI Adelaide GRADE Centre are involved in a number of methodological and scholarly projects related to GRADE. This includes methodological development work as part of the GRADE Project groups and also in other projects relating to JBI related implementation and use of GRADE. Members work on projects relating to the development of GRADE methods, evaluation of GRADE, experiences of using GRADE and any other GRADE related scholarly work. Members also generate their own projects for scholarly consideration and these are discussed within the GRADE centre and where appropriate the broader GRADE working group.



JBI Adelaide GRADE Centre staff contribute to or are members of the following GRADE Working Groups: Overviews, CERQual, Training and Credentialing, Prognosis, Stakeholders, Wording of recommendations, Rapid guidelines, Implementation, Technology, Evidence to decisions, GRADE NRS and GRADE Multiple Comparisons. This year, JBI staff contributed to a GRADE papers on urgent recommendations (<https://www.sciencedirect.com/science/article/pii/S0895435620311239>), prognosis (<https://www.sciencedirect.com/science/article/pii/S089543561930873X>), with our study on GRADE guidelines in Australia officially published (<https://www.sciencedirect.com/science/article/pii/S0895435620311562>).

Our team have increasingly been involved in research and methodological developments over the last 12 months in conjunction. Areas of particular strength amongst the team include evidence synthesis, guideline development methods, GRADE, EBHC education, evidence implementation and predatory publishing.

To provide an overview of some of the scholarly and research work that has been carried out, please find below a list of recent publications from the team.

SELECTED TEAM PUBLICATIONS FROM 2021

- Barker, T.H., Migliavaca, C.B., Stein, C. et al. Conducting proportional meta-analysis in different types of systematic reviews: a guide for synthesisers of evidence. *BMC Med Res Methodol* 21, 189 (2021).
- Mander, Dobeli, K., Steffensen, C., & Munn, Z. (2021). Diagnostic accuracy of prospectively gated, 128-slice or greater CTCA at high heart rates: a systematic review and meta-analysis. *Journal of Medical Radiation Sciences*, 68(4), 435–445.
- Scott AM, Forbes C, Clark J, Carter M, Glasziou P, Munn Z. Systematic review automation tools improve efficiency but lack of knowledge impedes their adoption: a survey. *Journal of clinical epidemiology*. 2021;138:80–94.
- Opio JN, Munn Z, Aromataris E. Prevalence of Mental Disorders in Uganda: a Systematic Review and Meta-Analysis. *Psychiatric quarterly*. 2021;93(1):199–226.
- Munn Z, Barker T, Stern C, Pollock D, Ross-White A, Klugar M, et al. Should I include studies from “predatory” journals in a systematic review? Interim guidance for systematic reviewers. *JB1 evidence synthesis*. 2021;19(8):1915–23.
- Stone JC, Glass K, Clark J, Ritskes-Hoitinga M, Munn Z, Tugwell P, et al. The Methodological Standards for Epidemiological Research (MASTER) scale demonstrated a unified framework for bias assessment. *Journal of clinical epidemiology*. 2021;134:52–64.
- Mander GT., Munn Z. Understanding diagnostic test accuracy studies and systematic reviews: A primer for medical radiation technologists. *Journal of medical imaging and radiation sciences*. 2021;52(2):286–94.
- Stone JC, Gurunathan U, Aromataris E, Glass K, Tugwell P, Munn Z, et al. Bias Assessment in Outcomes Research: The Role of Relative Versus Absolute Approaches. *Value in health*. 2021;24(8):1145–9.
- Brennan SE, Munn Z. PRISMA 2020: a reporting guideline for the next generation of systematic reviews. *JB1 evidence synthesis*. 2021;19(5):906–8.
- Chen Y, Guyatt GH, Munn Z, Florez ID, Marušić A, Norris SL, et al. Clinical Practice Guidelines Registry: Toward Reducing Duplication, Improving Collaboration, and Increasing Transparency. *Annals of internal medicine*. 2021;174(5):705–7.
- Steffensen C, Trypis G, Mander GT., Munn Z. Optimisation of radiographic acquisition parameters for direct digital radiography: A systematic review. *Radiography (London, England 1995)*. 2021;27(2):663–72.
- Pollock D, Davies EL, Peters MDJ, Tricco AC, Alexander L, McInerney P, et al. Undertaking a scoping review: A practical guide for nursing and midwifery students, clinicians, researchers, and academics. *Journal of advanced nursing*. 2021;77(4):2102–13.
- Peters MDJ, Marnie C, Tricco AC, Pollock D, Munn Z, Alexander L, et al. Updated methodological guidance for the conduct of scoping reviews. *JB1 evidence synthesis*. 2020;18(10):2119–26.
- Barker TH, Dias M, Stern C, Porritt K, Wiechula R, Aromataris E, et al. Guidelines rarely used GRADE and applied methods inconsistently: A methodological study of Australian guidelines. *Journal of clinical epidemiology*. 2021;130:125–34.
- Khalil H, Peters MD, Tricco AC, Pollock D, Alexander L, McInerney P, et al. Conducting high quality scoping reviews-challenges and solutions. *Journal of clinical epidemiology*. 2021;130:156–60.
- Pollock D, Tricco AC, Peters MDJ, McInerney PA, Khalil H, Godfrey CM, et al. Methodological quality, guidance, and tools in scoping reviews: a scoping review protocol. *JB1 evidence synthesis*. 2022;20(4):1098–105.
- Mander G, Steffensen C, Munn Z. Evidence synthesis in radiography: current challenges and opportunities. *JB1 evidence synthesis*. 2021;19(1):1–3.
- Scott, A., Forbes, C., Clark, J., Carter, M., Glasziou, P. and Munn, Z., 2021. Systematic review automation tool use by systematic reviewers, health technology assessors and clinical guideline developers: tools used, abandoned, and desired. *MedRxiv*. <https://doi.org/10.1101/2021.04.26.21255833>.
- Sarkis-Onofre R, Catalá-López F, Aromataris E, Lockwood C. How to properly use the PRISMA Statement. *Systematic reviews*. 2021;10(1):117–117.
- Kim BV, Aromataris EC, Middleton P, Townsend R, Thangaratinam S, Duffy JMN, et al. Development of a core outcome set for interventions to prevent stillbirth. *Australian & New Zealand journal of obstetrics & gynaecology*. 2021;61(5):658–66.
- Martin KB, Bednarsz JM, Aromataris E. Interventions to control children’s screen use and their effect on sleep: a systematic review and meta-analysis. 2021.
- Canuto KJ, Aromataris E, Burgess T, Davy C, McKivett A, Schwartzkopff K, et al. A scoping review of Aboriginal and Torres Strait Islander health promotion programs focused on modifying chronic disease risk factors. *Health promotion journal of Australia*. 2021;32(1):46–74.
- George S, Barrett M, De Ionnio J, Fletcher L, Choo WS, Rivas-Dominguez S, Romanic N, Lizarondo L, & Stern C. Experiences and effectiveness of occupational therapy interventions delivered in the acute setting: a mixed methods systematic review protocol. *JB1 evidence synthesis*. 2021;19(9):2457–63.
- Ritchie B, Porritt K, Marin T, Williams N. Diagnostic test accuracy of serum procalcitonin compared with C-reactive protein for bone and joint infection in children and adolescents: a systematic review and meta-analysis. *JB1 evidence synthesis*. 2021;19(12):3209–37.
- Dangen J, Porritt K, Abbas S. Effect of preoperative nutritional supplementation on postoperative outcomes for patients undergoing pancreaticoduodenectomy for cancer: a systematic review protocol. *JB1 evidence synthesis*. 2020;Publish Ahead of Print.
- Van Zelm R, Lockwood C. Process evaluation: evidence-based quality indicators in clinical practice, scholarship and pedagogy. *JB1 evidence implementation*. 2021;19(1):1–2.
- Akl EA, Morgan RL, Rooney AA, Beverly B, Katikireddi SV, Agarwal A, et al. Developing trustworthy recommendations as part of an urgent response (1–2 weeks): a GRADE concept paper. *Journal of clinical epidemiology*. 2021;129:1–11.
- Putnikovic M, Ward M, Jordan Z. Use of ECG monitoring for adult patients taking high-risk QT interval-prolonging drugs in clinical practice: a systematic review protocol. *JB1 evidence synthesis*. 2021;19(11):3113–20.
- Barnes S, Broom M, Jordan Z. Incidence and prevalence of acute stress disorder and post-traumatic stress disorder in parents of children hospitalized in intensive care units: a systematic review protocol. *JB1 evidence synthesis*. 2020;19(1):236–41.

JBÍ ADELAIDE GRADE CENTRE MEMBERS

- Associate Professor Zachary Munn, Centre Director
- Associate Professor Edoardo Aromataris, Centre Deputy Director
- Professor Zoe Jordan
- Dr Kylie Porritt
- Mrs Alexa McArthur
- Dr Cindy Stern
- Dr Micah Peters
- Dr Rasika Jayasekara
- Dr Sasja Jul Hakonsen
- Dr Nilakshi Waidyatillake
- Dr Judith Gomersall
- Dr Wendell Santos
- Adjunct Professor Kim Moretti
- Associate Professor Dru Riddle
- Adj Assoc Professor Dr Miloslav Klugar
- Adj Assoc Professor Dr Jiktra Klugarová
- Dr Timothy Barker
- Mr Robin Pap
- Dr Emily Reeve
- Associate Professor Motohide Miyahara
- Dr Jennifer Stone
- Dr Clifford Mwita
- Dr Denny John
- Dr Nagendra Dudi-Venkata
- Dr Danielle Pollock
- Dr Annalise Synnot
- Ms Victoria Freeman
- Dr Mary-Anne Ramis
- Dr Kate Kynoch
- Dr Hanan Khalil
- Dr Praba Sekhar
- Dr Adel Aref
- Ms Michelle Thomson
- Ms Sabira Hasanoff

PROMOTION AND SUPPORTING THE USE OF GRADE WITHIN AUSTRALIA AND THE JBI

The JBI Adelaide GRADE Centre aim to promote and support the use of GRADE throughout Australia and New Zealand and the JBI Collaboration. Since our launch, we have received numerous inquiries regarding GRADE work via email, phone and in person. Meetings and teleconferences have been held with various guideline developers and professional societies to introduce them to GRADE and to highlight the benefits of this approach. We regularly receive emails asking for help or clarification which we respond to and when needed have meetings with various groups to provide direction.

GRADE NEWSLETTER

We have established a newsletter for our GRADE Centre (in collaboration with the Melbourne GRADE Centre) which is [available here](#). This work has been led by Dr Danielle Pollock and Dr Timothy Barker, JBI Adelaide GRADE Centre members.



Figure 4: The Australian GRADE Newsletter: [Sign up here](#)

TWITTER

We were able to increase the number of members of the centre over the last year and now have 681 followers on Twitter. You can view our twitter @JBI_GRADE.

ENGAGING EVIDENCE

We recently partnered with relevant EBHC groups across Australia and New Zealand to jointly host the Engaging Evidence event. JBI Adelaide GRADE Centre staff contributed to the scientific and organising committee, with a number of JBI Adelaide GRADE staff presenting during the conference. Recordings of the presentations are available here: <https://www.youtube.com/channel/UCrLkTz694RIW1tmULlPajw>

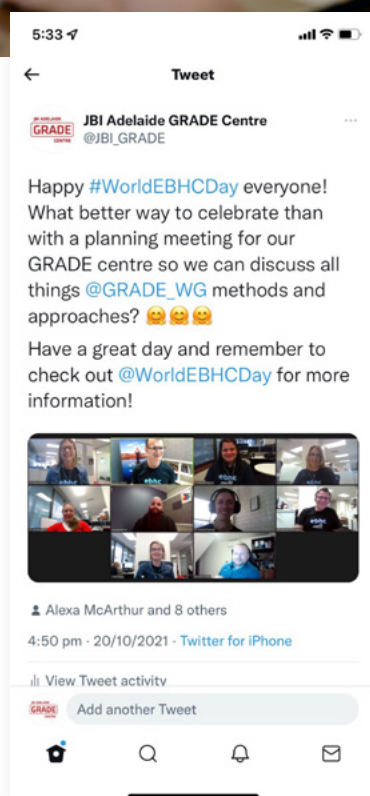


Figure 5: Tweet from the JBI Adelaide GRADE Centre on World EBHC Day.





FOR FURTHER ENQUIRIES

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