Best Practice Guidelines for the Safe Restraint of Children Travelling in Motor Vehicles

ADMINISTRATIVE REPORT

Kidsafe
Child Accident Prevention Foundation of Australia

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Copies of the guideline and this document can be downloaded from:
http://www.neura.edu.au/CRS-guidelines

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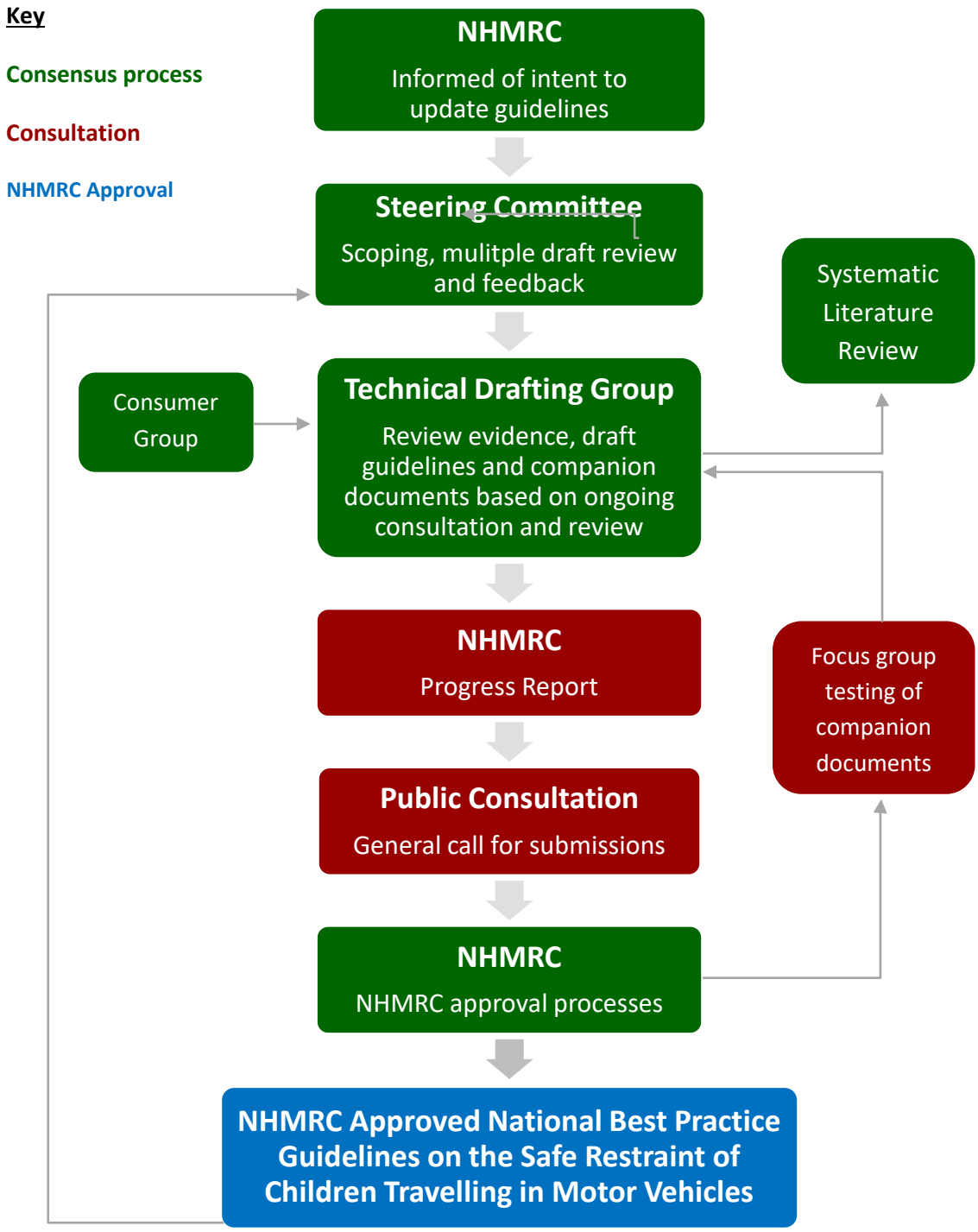
2 Development process

The development of the Guidelines has followed the key principles and processes outlined in the document NHMRC Standards and Procedures for Externally Developed Guidelines (2011), but conforms to the 2016 NHMRC Standards for Guidelines. The flow chart below details the recommendation, consultation, and dissemination processes of the child restraint guidelines.



2.1 Definition of guidelines scope

The *Best practice guidelines for the safe restraint of children travelling in motor vehicles* were initially developed in 2013. The broad scope of the guidelines was set by the convening organisations at the commencement of the process in 2011. Further details and specific topics to be considered for inclusion during the update were defined by the Steering Committee at a meeting on the 30th of October 2018.

2.2 Systematic Literature review

The systematic review was conducted by an appointed consultant, Dr Jane Elkington, who has expertise in systematic reviews and guideline development in road safety. Potential candidates for providing high level assistance with the systematic review were identified by the convening organisations and Dr Elkington was appointed with approval from the technical drafting group. Dr Elkington was chosen because she has extensive relevant expertise in both guideline development and road safety. A brief summary of her credentials and experience is contained in Appendix 1.

Full details and explanation of the choice of the methodology for the systematic review are contained in the Technical Report. Briefly, the process was to conduct literature searches in the medical literature (using the PubMed database), the transport literature (using the Australian Transport Research Index) and Cochrane reviews using key terms relating to child restraints and child passenger safety until no new articles emerged. Articles were then reviewed for relevance to each research question, and assessed for quality using all the dimensions specified in the NHMRC Evidence matrix (NHMRC, 2011).

2.3 Drafting of guidelines

In preparation for updating the guidelines, a scoping meeting was held which involved all members of the Steering committee and technical drafting group. The issues raised during this meeting were then incorporated into the systematic review. For each research question within the scope, recommended practices were developed and reviewed by the technical drafting group, based on the evidence. Evidence tables for each recommendation were drafted and/or updated as required. Where evidence was either very poor or there was no evidence, but where there was a need to provide guidance (based on the scope defined by the Steering Committee), consensus based recommendations were developed by the technical drafting group. Practice points were developed to mention a small number of issues that were outside the scope of the guidelines, but deemed important issues for consideration by those providing advice to consumers in this area.

Much of the work of the technical drafting group was conducted in teleconferences and by email. A final review of the whole draft guidelines was conducted by each member of the steering committee and technical drafting group prior to the consultation phases. Consensus was reached by the steering committee and technical drafting group for all recommendations, and practice points, and all consensus based recommendation. Formal methods of mediating this process (i.e. through the use of an external mediator) were not required, as agreement was reached in all cases. Consensus was achieved by the following (informal) process:

- Each broad issue, and the supporting evidence, was discussed during teleconferences. Each drafting group member had the opportunity to provide his/her viewpoint. The discussion continued until agreement was reached on the broad content of the recommendations.
- This broad agreement was then turned into a draft wording, which was circulated, and then discussed in follow up teleconferences, and by group emails and some one-on-one phone calls between the chair and drafting group members.
- Wording was then revised, and recirculated and re-discussed, until all members of the technical drafting group were in agreement with (or raised no further objections to) the

wording of the recommendation, or it was clear that complete agreement was unlikely. In this instance the alternatives under consideration were voted on, and the majority view was adopted.

- The final version was circulated again, and formal endorsement was given by all drafting group members, prior to commencing approval processes with Kidsafe and the Steering Committee member organisations.

2.4 Consultations

The draft guidelines documents were provided to the Steering Committee members for comment prior to the release for public comment.

The resulting draft guidelines and associated documentation were then made publicly available through the Neuroscience Research Australia website. A public announcement was published in The Australian newspaper on the Wednesday October 2, 2019. A broad range of stakeholder groups, identified during the project development phase, were invited to provide comment on the guidelines. Any individuals or organisations who had self-identified to the convening organisations were invited to comment on the draft. In addition to the members of the steering committee (see 3.4) all Australian Child restraint manufacturers and the following organisations were separately invited to comment on the draft:

- ACT Health
- Access Canberra, Road Transport Authority (ACT)
- Australian Child Restraint Resource Initiative (ACRI)
- Australian Competition and Consumer Commission
- Child Restraint Fitters (via Kidsafe mailing lists and existing networks)
- Consumers Health Forum of Australia
- Department of Health (Federal)
- Department of Health (Queensland)
- Department of Health (Northern Territory)
- Department of Health (Western Australia)
- Department of Health and Human Services (Victoria)
- Department of Health and Human Services (Tasmania)
- Department of Infrastructure, Planning and Logistics (NT)
- Department of Planning, Transport and Infrastructure (SA)
- Department of State Growth (Tasmania)
- Department of Transport (VicRoads)
- Department of Transport and Main Roads (Queensland)
- Dorel
- Medical Services Advisory Committee (MSAC)
- National Transport Commission
- NSW Health
- NSW Authorised Fitters Network Members (via Mobility Engineering)
- Pharmaceutical Benefits Advisory Committee (PBAC)
- Roads and Maritime Services (NSW)
- Royal Australian College of Surgeons
- Royal Children's Hospital (Melbourne)
- SA Health
- Therapeutic Goods Administration (TGA)
- Transport and Infrastructure Council
- WA Authorised Fitters Network Members (via WALGA RoadWise)
- WA Road Safety Commission

All stakeholders, steering committee members and drafting group members were encouraged to notify their professional networks of the public comment process. Members of the public were also encouraged to provide input by advertising via Kidsafe mailing lists and social media pages.

2.5 Review processes

In addition to reviews by the Technical Drafting Group and Steering Committee noted above, NHMRC arranged two scientific (expert) reviews and an independent methodological review. One internal NHMRC AGREE II assessment was conducted. Two independent AGREE II assessments were conducted by A/Prof Kim Delbaere, Neuroscience Research Australia, and A/Prof Anne Tiedemann, University of Sydney. Neither of these two reviewers were involved in any aspect of the development of the guidelines.

3 Governance and stakeholder involvement

The project was jointly convened by Neuroscience Research Australia and Kidsafe Australia.

An expert working committee (the Technical Drafting Group), chaired by Professor Lynne Bilston was formed in October 2018 to guide, advise and author the development of the Best Practice Guidelines on the Safe Restraint of Children Travelling in Motor Vehicles.

3.1 The technical drafting group

Name	Organisation	Discipline/Expertise
Professor Lynne Bilston (Chair)	Neuroscience Research Australia & University of New South Wales	Engineering, Road Safety, Child Injury
A/Prof Julie Brown	Neuroscience Research Australia & University of New South Wales	Anatomy, Road Safety, Public health
Prof Judith Charlton	Monash University Accident Research Centre (MUARC)	Road Safety, Behavioural science, Public Health
Dr Jeffrey Dutschke	Centre for Automotive Safety Research, University of Adelaide	Engineering, Road Safety
Professor Lisa Keay	George Institute for Global Health, UNSW	Public health, Road Safety, Child Safety
Dr Kate Hunter	George Institute for Global Health, UNSW	Public health, Road Safety, Child Safety
Ms Melita Jeffries	Kidsafe Western Australia	Child Safety, Consumer Education
Ms Kellie Shewring (until 16/5/19)	Kidsafe Northern Territory	Child Safety, Consumer Education

3.2 Project staff

Dr Jane Elkington (Expert Reviewer, consultant), Jane Elkington & Associates

3.3 Methodological Advisor

Professor Robert Herbert, Neuroscience Research Australia

3.4 Steering committee

The steering committee was appointed to provide input on the development of the guidelines and was selected to be multidisciplinary, representing relevant disciplines and clinical experts in the area of child occupant protection in motor vehicle crashes, and to be from all states and territories in Australia. The group included organisations representative of the end-users of the guidelines. The steering committee were consulted at each stage of the guideline development, from determining the initial scope, reviewing the draft guidelines, providing additional input during the public comment phase and then again prior to submission to NHMRC for review and endorsement.

Name	Organisation	Discipline/Expertise
Basuki Suratno	Transport for NSW	Engineering, road safety policy
Belinda Maloney	Royal Automobile Association, South Australia	Child road safety, child restraint fitting
John Leditschke	Queensland Child Restraint Education and Safe Travel Committee	Paediatric surgeon
Elvira Lazar	Royal Automobile Club of Victoria	Road safety
David Andrews	State Insurance Regulatory Authority (NSW)	Injury prevention
Dimitra Vlahamitros	National Roads and Motorists' Association (NSW)	Road safety
Craig Newland	Australian Automobile Association	Vehicle and road safety policy
Jana Leckel	VicRoads	Road safety policy
Nicole Middleton	South Australia Department for Transport Energy and Infrastructure (DTEI)	Road safety policy
Emma Hawkes	WA Road Safety Commission	Road safety policy
Ali Akbarian	Mobility Engineering	Child restraint fitting
Tammie Deshon	WA Local Government Association – RoadWise Program	Child restraint fitting
Russ Milner	WA Department of Health	Injury prevention policy
Kathleen Clapham	University of Wollongong	Indigenous health
Tracey Rossetto (until 26/3/19)	NSW Department of Education	Transport of children with disability
Joel Tucker & Louise Hart	Royal Automobile Club of Queensland	Road safety policy
Will Oakley	Royal Automobile Club of Tasmania	Road safety policy
Derek Wainohu	InfaSecure Pty Ltd	Child restraints
Brad Bickley	Joie Baby/Nuna Baby Products	Child restraints
Sebastian Beltrami	Britax Childcare Pty Ltd	Child restraints

The organisations represented on the steering committee or providing funding have endorsed the guidelines.

3.5 Organisations formally endorsing the guidelines

Neuroscience Research Australia and Kidsafe have agreed to formally endorse the guidelines. Additionally, all steering committee members and funders will commence the processes for formal endorsement once the guidelines are finalised after public comment.

3.6 Industry involvement

Unlike the development of initial guidelines in 2013, industry representatives were invited to participate on the Steering Committee during the guideline update. This was done because engaging with industry during the development of the guidelines was seen as providing greater transparency and understanding on product use, and to ensure that product manufacturers were fully engaged in the research evidence base for best practice of how child restraints are used and can thus provide consistent advice to consumers. It also assists in child restraint usage recommendations being consistent with manufacturer's instructions for correct use. Their involvement also has the potential to influence product development which will ultimately assist consumers to achieve best practice when choosing and using child car restraints. In addition to the industry representative involved on the steering committee, further industry input was sought during public comment. Potential for commercial conflicts of interest from industry representatives to influence the guidelines development process were considered in detail by the Technical Drafting Group whenever industry representatives provided comment or input to the process, including at the Scoping Meeting, input on Guidelines drafts, and submissions during the public comment phase.

3.7 Consumer input in guideline development

Consumer organisations were involved in the development process as members of the steering committee (Kidsafe, NRMA, RACV, RACT, RACQ, AAA, RAA), the technical drafting group (Ms Melita Jefferies, Kidsafe WA), and were consulted extensively. Attempts were made to include an independent consumer representative (who was not an employee of a consumer organisation and did not have a personal relationship with any of the developers or drafting group members) on the steering committee. When this proved unsuccessful we instead established a *consumer representative advisory group*, consisting of parents and carers of young children, developed and managed by Kidsafe Australia, to provide direct consumer input on guidelines scope, advice needs, input on draft materials, and other consumer perspectives during the course of the guidelines development.

Direct consumer input was encouraged during public consultations, by:

1. Advertising in The Australian newspaper and distributed to stakeholders identified in section 2.4;

2. Advertising in all the Kidsafe Centres nationally and through Kidsafe distribution lists

3. Focus group testing of companion materials among parents and carers of young children of ages covered by the guidelines, including Aboriginal and Torres Strait Islander input and people from other culturally and linguistically diverse groups who frequently access services from Kidsafe.

Submissions from five consumers were received during the public comment process and the Consumer representative advisory group were consulted at each stage throughout the process.

3.8 Aboriginal and Torres Strait Islander input in guideline development

A specialist in Indigenous health was appointed to the Steering Committee (Professor Kathleen Clapham) and Technical Drafting group (Dr Kate Hunter) for the 2018/19 guidelines update. In addition, input from Aboriginal and Torres Strait Islander groups was sought during the public consultation phase as follows. The draft guidelines were sent to Aboriginal Health and Medical Research Council of NSW, National Aboriginal Community Controlled Health Organisation, Aboriginal Health Council of WA, and individual Aboriginal Medical Services. No submissions were received during public comment relating to the implications of implementing these guidelines for Aboriginal and Torres Strait Islander groups in remote communities.

4 Funding

The organisations funding the guideline development process were:

Funding Organisation	Funding Received	Funding %
NSW Centre for Road Safety	$10,000	16%
NSW State Insurance Regulatory Authority	$10,000	16%
RACQ - Royal Automobile Club of Queensland	$1,000	1.6%
RACT – Royal Automobile Club of Tasmania	$5,000	8%
VicRoads	$5,000	8%
WA Road Safety Commission	$5,000	8%
Mobility Engineering	$1,000	1.6%
InfaSecure Pty Ltd	$3,000	4.8%
Britax Childcare Pty Ltd	$2,500	4%
Joie Baby Products	$10,000	16%
Nuna International	$10,000	16%
TOTAL	**$62,500**	**100.0%**

5 Management of potential competing interests

All steering committee members and technical drafting group members have signed NHMRC disclosure of interest (DOI) forms at entry point into the project. At each stage of the scoping, evidence, draft review and signoff members of the development process were asked to declare any changes to their existing declarations of interests. Each meeting began with a review of members' declarations and summary of relevant disclosures to ensure all potential conflicts were managed appropriately.

If at any stage members declare a conflict of interest regarding a facet of the guidelines, they will abstain from any decision making in regards to that particular aspect of the document. Once the issue is resolved by the remaining members of the steering committee and technical grafting group, the abstaining member will be reintegrated into the discussion making process.

5.1 Summary of declared interests

No member of either the Technical Drafting Group or the Steering Committee declared any gifts, gratuities or payments.

5.1.1 Technical drafting group

A majority of the members of the Technical Drafting Group have affiliations with various organisations that have an active involvement in child restraints, motor vehicle safety, and injury prevention research. These include the Child Restraint Evaluation Program (CREP), the Centre for Automotive Safety Research (CASR), Monash University Accident Research Centre (MUARC), Kidsafe, Neuroscience Research Australia (NeuRA), the Australian Injury Prevention Network (AIPN), Australian College of Road Safety (ACRS), NSW Child Death Review team, and The George Institute.

As a result of these affiliations, many Technical Drafting Group members have published research protocols, papers, and reports, and have conducted studies in the field of injury prevention for children in motor vehicle crashes. These affiliations are not expected to result in any conflicts of interest as the members of the Technical Drafting Group were specifically selected for their previous experience and knowledge with related to child restraints.

Five members of the Technical Drafting Group provide consultation services and advice related to child restraint use. Three members of the Technical Drafting Group are on the Australian Standards committee for child restraints, with one member the chair of this committee.

Three members are currently employed within the child restraint industry. Two offer training and education on the use and installation of child restraints, and one is a consultant for CREP. Melita Jefferies works for an organisation that provides paid and free advice to consumers on child restraint issues and manages accredited training of child restraint installers nationally.

Finally, five members of the Technical Drafting Group receive research funding from various sources including the Transport NSW, NSW Health, Aboriginal Health and Medical Research Council, RACV, NRMA, VicRoads, NHMRC, Child restraint manufacturers and an Australian Research Council Linkage Grant.

A more detailed and comprehensive Disclosure of Interest table is listed in Appendix 2.

5.1.2 Steering committee

Three of the Steering Committee members are currently employed by restraint manufacturers, and one is co-owner of an engineering company who provides fee for service training, restraint installation and inspection services, state government contract for fitting network management. Other than these four Steering committee members no others declared any ownership interests, research funding or payment/gifts/gratitude's related to child restraints.

The Steering Committee members declared a wide range of advisory positions related to child restraint use. Thirteen of the members are either employed, or provide consulting services. Five of these members are employed by the RAA, RACV, RACQ, or NRMA, which sell child restraints, child restraint accessories, and may also provide fitting services. There are two the Steering committee members that have no interests to declare.

A more detailed and comprehensive Disclosure of Interest table is listed in Appendix 2.

6 References

National Health and Medical Research Council. *Procedures and requirements for meeting the 2011 NHMRC standard for clinical practice guidelines*. Melbourne: National Health and Medical Research Council; 2011.

7 Appendix 1 – Systematic Literature review consultant

Dr Jane Elkington conducted the systematic review, in consultation with the Technical Drafting Group. Dr Elkington has had previous experience in guideline development and systematic reviews, including undertaking the narrative review of the initial Best Practice child restraint guidelines in 2012 (See Evidence Review Section).

Dr Elkington has developed evidence-based guidelines and best practice principles for a range of government agencies and non-government organisations including guides to: Safe Celebrating for young people (YouthSafe), Safety Pack: Occupational Health and Safety (WorkCover, NSW), Community-based Safe Driving Programs for Novice Drivers and Passengers (NSW Raods & Traffic Authority) and Managing Loss & Grief in the Aged-Care Industry (WorkCover, NSW). She was appointed as Technical Editor to the NHMRC publication: Unintentional injury in young males, 15-29 years', ISBN 0 644 39752 7, Commonwealth of Australia 1997.

8 Appendix 2 – Disclosure of interest tables

8.1 Technical drafting group

Name	Organisation	Employment	Consultancy	Ownership Interests--A	Ownership Interests- B	Research Funding	Payments, Gifts, Gratuities
Professor Lynne Bilston (Chair)	Neuroscience Research Australia & University of New South Wales	Nil	Consultant, advisor for people who do restraint fitting/advice	Nil	Nil	Australian Research Council Discovery Grant, NHMRC Project grant, NSW Centre for Road Safety Research Contract	Nil
A/Prof Julie Brown	Neuroscience Research Australia & University of New South Wales	Nil	Consultant services for CREP funded by government, car clubs and industry	Nil	Nil	Research funded by child restraint manufacturers, RTA, NRMA, RACV, VicRoads	Nil
Prof Judith Charlton	Monash University Accident Research Centre (MUARC)	Nil	Advice to CRS use/design to organisations such as Holden, RACV, VR, MAA	Nil	Nil	Current: 1) Australian Research Council Linkage Grant with Industry partners RACV, VicRoads, TAC, Britax, ProQuip. 2) NHMRC Project. 3) EU Erasmus. 4) Australian Research Council	Nil
Dr Jeffrey Dutschke	Centre for Automotive Safety Research, University of Adelaide	I am employed at a research organisation with interests in all aspects of road safety.		Nil	Nil	My employer has received research grants to study child safety seat use. There is an existing project to study injuries occurring in older children.	Nil
Professor Lisa Keay	George Institute for Global Health, UNSW	Nil		Nil	Nil	Investigator of studies funded by: Aboriginal Health & Medical Research Council of NSW; NSW Health & Transport for NSW; NHMRC & ARC on use of child car seats.	
Dr Kate Hunter	George Institute for Global Health, UNSW	Nil	Advice on assessing equitable access to health services for Aboriginal and Torres Strait Islander people	Nil	Nil	AHMRC (NSW), NSW Health and Transport; NHMRC; Australian Research Council	Nil

Name	Organisation	Employment	Consultancy	Ownership Interests--A	Ownership Interests- B	Research Funding	Payments, Gifts, Gratuities
Ms Melita Jefferies	Kidsafe Western Australia (on behalf of Kidsafe nationally)	Employed by a not-for-profit charitable organisation who conduct child restraint training, installation, checking, hiring and advice services. Fees are charged for these services. All profits are reinvested into undertaking road safety education activities with particular emphasis on occupant protection. This is the only aspect of our organisation's business that may be deemed commercial in relation to occupant safety.	Nil	Nil	Nil	Nil	Not personally, but my employer has a partnership arrangement with Britax. Specific details of this sponsorship are confidential.
Ms Kellie Shewring (until 16/9/19)	Kidsafe Northern Territory (on behalf of Kidsafe nationally)	Employed by a not-for-profit charitable organisation who conduct child restraint, installation, checking, hiring and advice services. Fees are charged for these services. All profits are reinvested into undertaking road safety education activities with particular emphasis on occupant protection. This is the only aspect of our organisation's business that may be deemed commercial in relation to occupant safety.	Nil	Nil	Nil	Nil	Not personally, but my employer has a partnership arrangement with Britax. Specific details of this sponsorship are confidential.

Name	Experience	Affiliations	Participation in Guideline Development	Guideline Endorsement
Professor Lynne Bilston	Multiple media appearances. Lots of academic papers/research	Member of Kidsafe, ACPN, National Panel on Biomechanics of Injury. All advocacy; Chair of Australian Standards Committee CS-085 – child restraints	NeuRA informal recommendations. Advice to Kidsafe. Advice to VicRoads, NRMA and RACV. Best Practice Child Restraint Guidelines 2013	Best Practice Child Restraint Guidelines 2013
A/Prof Julie Brown	Published, advocated and publically debated on design and assessment issues	CREP program, board member of NSW Kidsafe. Special advisor NSW child death review team; US NTSB Occupant protection subcommittee; Australian Standards committee CS-085; Member of Australian College of Road Safety, Australian Injury Prevention Network	Employed at NSW RTA between 1985 - 1998 and was directly involved in development of guidelines, policies and recommendations relating to child occupant safety in cars; Best Practice Child Restraint Guidelines 2013	NO - however, informally has endorsed numerous guidelines, but not in a formal capacity
Prof Judith Charlton	Academic papers (Journal papers and reports), media launches and public speaking engagements at schools , community, industry	Australian College of Road Safety (Vic Chapter). AAAM member (Association Advancement of Automotive Medicine)	Auto CRC Report - Child Safety Guidelines. (Vic Kidsafe/Coroner's Office Guidelines on driveway safety for Children); Best Practice Child Restraint Guidelines 2013	Nil
Dr Jeffrey Dutschke	Research Fellow at the Centre for Automotive Safety Research. Academic papers and research analysis of mass data, at scene crash investigation, mathematical modelling, and biomechanics.	ACRS (SA); Member of the Standards Australia committee CS-085 – child car seats and accessories	Nil	Nil
Professor Lisa Keay	Investigator on the Buckle up Safely project focusing on Pre-school based interventions for appropriate use of child restraints	Member NSW Child and young person injury prevention working group, office of the advocate for children and young people. Member AIPN,	Nil	Nil
Dr Kate Hunter	Senior Research Fellow. Body of work primarily in Aboriginal and Torres Strait Islander child and family health and the social determinants of health. Research expertise includes the conduct and evaluation of community based programs, translational research, and assessing equitable access to health services for Aboriginal and Torres Strait Islander people.	Deputy chair of Kidsafe NSW, which runs child car seat workshops for a fee. Member of Australasian Injury Prevention Network.	Nil	Nil
Ms Melita Jefferies	Compatibility of restraints and vehicles for families who have 3 or more children under 12 years of age. Coordinated and presented on Kidsafe WA's pre-legislation change project around professionals who transport children as part of their employment. Accredited training for child restraint fitting nationally.	We work with all child restraint manufacturers to ensure our staff are kept up to date with new product releases and changes to ensure we have the most up to date information when educating the consumer and assisting them to make an informed choice on the safest options for child car restraints. However, we are independent and do not recommend specific brands or models of restraints but instead offer advice on what features they should look for and which restraints have	Best Practice Child Restraint Guidelines 2013	Nil

Name	Experience	Affiliations	Participation in Guideline Development	Guideline Endorsement
		these features or how well they fit in the customer's vehicle or will fit with their existing restraints. Kidsafe Australia representative on Australian Standards committee CS-085;		
Ms Kellie Shewring	Manages fitting service and MAC car seats for kids program for Kidsafe NT		Nil	Nil

8.2 Steering committee

Name	Organisation	Employment	Consultancy	Ownership Interests – A	Ownership Interests – B	Research Funding	Payments, Gifts, Gratuities
Ali Akbarian	Mobility Engineering	Our business offers training and advice services in use/fitment of child restraints. We use the guidelines for this.	Offer free and paid advice in use and fitment of child restraints	Shareholder of Mobility Engineering	Nil	Nil	Nil
Dr Basuki Suratno	RTA	Nil	Nil	Nil	Nil	Nil	Nil
Belinda Maloney	RAA	Royal Automobile Association - Sales of restraints, advice, training of organisations, fitting service, collection of statistics.	Provide child restraint advice to such organisations - Families SA, Novitatech, Disability and Family Day Care Services, DTEI, etc… STDs committee	Nil	Nil	Nil	Nil
Brad Bickley	Joie Baby / Nuna Baby Products	Currently employed by Wonderland Nursery goods Co., Ltd	I am a consultant to Nuna International B.V. and Joie baby products.	Nil	Nil	Nil	Nil
Craig Newland	Australian Automobile Association	The AAA is a not-for-profit organisation and is the national secretariat for Australia's motoring clubs. The clubs provide advice to members and consumers, and some clubs offer child restraint fitting services, including sales of child restraints - the AAA is not directly involved with these activities	Nil	Nil	Nil	Nil	Nil
David Andrews	State Insurance Regulatory Authority (NSW)	Nil	Nil	Nil	Nil	Nil	NIl
Derek Wainohu	InfaSecure	Currently employed as the product engineering manager for InfaSecure	I was initially working on contract for InfaSecure, prior to my offer of full time employment.	Nil	Nil	Nil	Nil
Dimitra Vlahamitos	National Roads and Motorists Association (NSW)	NRMA provides car seat fitting service and car seat advice. Thrifty rents out seats.	Nil	Nil	Nil	Nil	Nil
Elvira Lazar	RACV	Nil	Nil	Nil	Nil	Nil	Nil
Emma Hawkes	WA Road Safety Commission	Nil	Nil	Nil	Nil	Nil	Nil

Name	Organisation	Employment	Consultancy	Ownership Interests – A	Ownership Interests – B	Research Funding	Payments, Gifts, Gratuities
Dr John Fred Leditschke	Queensland Child Restraint Education and Safe Travel Committee (CREST)	Nil	Advice to RACQ as Chairman of CREST	Nil	Nil	Nil	Nil
Jana Leckel	Vic Roads	Nil	Nil	Nil	Nil	Nil	Nil
Joel Tucker	RACQ	Sale of child restraints and child restraint accessories to RACQ members, general public and other organisations or agencies as requested. These restraints and accessories are primarily sources from Britax. Installation of child restraints for RACQ members, the general public and other organisation or agencies. These are provided at a fee. Where a child restraint has been purchased from RACQ, the initial installation and first turn on convertible seats, the installation will be provided as a complimentary service	Consultation with various government and industry bodies in relation to ensuring safer vehicles including child restraints and their use by Queensland motorists. Provision of advice regarding Child Restraints selection and installation to RACQ members, general public and other organisations	Nil	Nil	Nil	Nil
Kathleen Clapham	University of Wollongong	Nil	Expert advisor to child death review team with meeting fee of $75 per hour	Nil	Nil	NSW Health & Transport for NSW	Nil
Louise Hart	RACQ	RACQ fits and installs child restraints for a fee.	Nil	Nil	Nil	Nil	Nil

Name	Organisation	Employment	Consultancy	Ownership Interests – A	Ownership Interests – B	Research Funding	Payments, Gifts, Gratuities
Nicole Middleton	SA Department for Planning, Transport and Infrastructure (DPTI)	Nil	Nil	Nil	Nil	Nil	Nil
Russ Milner	WA Department of Health	Nil	Nil	Nil	Nil	Nil	Nil
Sebastian Beltrami	Britax Childcare Pty Ltd	Currently employed as Engineering Manager at Britax Childcare	Nil	Nil	Nil	Nil	Nil
Tammie Deshon	WALGA Roadwise Program	Nil	Nil	Nil	Nil	Nil	Nil
Tracey Rossetto (until 26/3/19)	NSW Department of Education	Nil	Nil	Nil	Nil	Nil	Nil
Will Oakley	RACT	My current employer RACT sells child restraints and charges for fittings.	Nil	Nil	Nil	Nil	Nil

Name	Experience	Affiliations	Participation in Guideline Development	Guideline Endorsement
Ali Akbarian	I often provide keynotes to various relevant groups around child car restraints. I am often asked to review materials produced by other organisations as an expert in this field. In most cases I do this on a voluntary basis.	We are engaged with RMS on a contract to provide advice on child restraints to the public. The training and audit activity we conduct may influence may be seen as to influence my contribution in a positive manner given my experience.	National CRS Guidelines 2013 on Steering Committee	Nil
Dr Basuki Suratno	We included parts of the first edition of the guidelines in our publication Fitters Manual. I have a few papers about child restraint issues and manage child restraint evaluation program	Project manager of CREP, Authorized Restraint Fitting Station Scheme. Austroads representative in CS-085 committee. Biomechanics Panel. I work for NSW Centre for Road Safety with its interests are aligned with the subject matter.	I am involved in the implementation of child restraint laws in NSW. Exemption for children with disability. Restraint fitting station manual. Brochures, DVDs	I developed, managed and endorsed Authorized fitting station scheme and CREP
Belinda Maloney	Media interviews both spoken and written on child safety with guidelines mentioned as basis for advice. Developed a range of fact sheets on various issues with guidelines acting as a basis for our advice and content	CS-085 Committee - Child restraint Standards responsible for the AS/NZS1754, 8005 and 4370s. (AAA Rep)	Internal RAA brochures + fact sheets + website Dept Transport, Energy + Infrastructure brochure + Website	Submissions to Government on legislation (SA). DTEI Brochure
Brad Bickley	Not specified	I am a member of the Standards Australia committee for Prams and Strollers (CS-020).	Nil	Nil
Craig Newland	Research papers on dynamic performance of child restraints. Has given oral presentation of material contained in research papers. Was on steering committee on previous edition of guidelines.	The AAA is an advocacy organisation with road safety as a key advocacy issue and interacts with a broad range of stakeholders. Affiliated with motoring clubs and ANCAP who use/recommend/sell child restraints.	Nil	Nil
David Andrews	Nil	Nil	Nil	Nil
Derek Wainohu	Not specified	Current committee member with Australian Standards committee CS-085	Nil	Nil
Dimitra Vlahamitos	NRMA media spokesperson on child car safety. Provide advice on media, social media and educational collateral.	NRMA rep on CREP. NRMA education program provides car seat advice to primary school kids.	Nil	Nil

Name	Experience	Affiliations	Participation in Guideline Development	Guideline Endorsement
Elvira Lazar	CREP child restraint evaluation program (also financial contributor). TOCAN – Transportation of children with additional needs.	RACV is committed to providing the latest and up to date information to ensure that children travel safely in cars. RACV provides child restraint advice via our website, our electronic newsletter and media comment.	Nil	Nil
Emma Hawkes	Not specified	Unpaid membership of child car restraints reference group – State government group considering child car restraint issues in WA.	Policy advice on changes to WA rules regarding child car restraints, enacted June 2018.	Nil
Dr John Fred Leditschke	Multiple media appearances as an advocate for ASA affirmed infant and child restraints and consequences of inappropriate adherence of restraints and incorrect anchorage of infant and child in the restraint. Spokesperson for Kidsafe Qld; Paediatric Surgeon Royal Children's Hospital, Brisbane; Past Chairman Trauma Committee	Member Kidsafe Qld: Past national president. Member Royal Australasia College of Surgeon, Trauma Committee Queensland	CREST - Subcommittee of the RACS Queensland Trauma Committee. RACS QLD Trauma Committee	Nil
Jana Leckel	Development of related educational material/fact sheets on child car restraints for VicRoads	Nil	Nil	Nil
Joel Tucker	Provision of information sessions to various community and educational groups in Queensland on Child Restraints, their selection and installation as part of our advocacy message. Those sessions and programs are provided free of charge. However, a fee is charged for the information sessions conducted by our Drive Education team and which involve Child Restraint issues	RACQ advocated for child safety on behalf of its 1.7 million members, and correct selection and installation of child restraints is part of that.	Was on last NHMRC Guidelines on Child Restraints – Steering Committee.	Nil
Prof. Kathleen Clapham	A senior Aboriginal researcher and anthropologist with extensive health and social research experience. Within the broad area of Indigenous health, her research focuses on the safety, health and wellbeing of children and young people, community-based interventions, the social and cultural determinants of health, and health services improvements.	Membership of Kidsafe NSW Council, Expert advice to Child Death Review Team; Member of the Australasian Injury Prevention Network	Active and Safe: Preventing unintentional injury to Aboriginal children and young people in NSW.	Nil

Name	Experience	Affiliations	Participation in Guideline Development	Guideline Endorsement
Louise Hart	I deliver an education program to parents and carers of children relating to child safety and child restraints.	RACQ advocates for child safety on behalf of its 1.7 million members and correct selection and installation of child restraints is part of that.	Nil	Nil
Nicole MIddleton	Not Specified	Nil	In my role in the Dept of Planning, Transport and Infrastructure (SA) we refer to the guidelines on our website	DPTI supports the guidelines in the interest of road safety.
Russ Milner	Advocate for road safety and injury prevention	Nil	Nil	Nil
Sebastian Beltrami	Not specified	I am currently employed by Britax Childcare who is a manufacturer of child restraints in Australia.	Nil	Nil
Tammie Deshon	Developed and delivered training material to child restraint fitters, content used consulted the earlier version of the guidelines.	Unpaid member of the child car restraints reference group – A WA multi-agency group considering child car restraint issues. Working relationship with Kidsafe Australia's representative for the guidelines who also sits on the Technical drafting group and the WA Road Safety Commissions Steering committee member.	Nil	Nil
Tracey Rossetto	Spoken at Spot on DD, guest lecturer at Sydney University and Government schools providing audience with link to guidelines and consumer brochure. Also OT paediatric interest groups. Registered Occupational Therapist. Interest in injury prevention and safety for people with disability, including children.	Employed by Department of Educations, Assisted schools travel program. Responsible for providing consultative advice and support to schools on the safe travel of students with disability.	Nil	Nil
Will Oakley	I have provided presentations on occasion regarding child safety in general including a focus on child restraints.	My employer conducts a range of activities that are geared to educate the Tasmanian community about child safety while also promoting products.	My employer RACT develops a range of educational and promotional materials regarding child restraints.	

8.3 Project staff

Name	Organisation	Employment	Consultancy	Ownership Interests – A	Ownership Interests – B	Research Funding	Payments, Gifts, Gratuities
Dr Jane Elkington	Jane Elkington & Associates	Research fellow, Neuroscience Research Australia, related to child road safety	Epidemiologist and road safety consultant	Nil	Nil	Nil	Nil

Name	Experience	Affiliations	Participation in Guideline Development	Guideline Endorsement
Dr Jane Elkington	Epidemiologist and road safety consultant	Independent Consultant	Systematic literature review, document drafting	N/A

9 Appendix 3 - Summary of Changes to Best Practice Guidelines for the Safe Restraint of Children Travelling in Motor Vehicles (2020 Update)

Below is a *summary* of the key changes made to the guidelines during the 2020 update. This summary was provided to the Technical Drafting group, Steering Committee representatives and as part of the public comment package to enable readers to identify the key changes. Full details of the evidence underpinning these changes is contained in the main Guidelines document.

Substantive Changes:

Introduction - Additional information on use of child restraints for children with disability.

Recommendation 1.9 (booster to adult belt transition):

- Stronger recommendation for use of the '5 step test' to guide booster seat to adult seat belt transition, and removal of 145-150cm height as approximate target for transition.

Consensus-Based Recommendation 2.1 (taxis and other vehicles):

- Addition of private hire cars and ride share services to the recommendation for children to use their recommended restraint in taxis.

Recommendation 2.11 (integrated restraints):

- New recommendation for use of add-on high back booster seats in preference to integrated boosters for children aged 4-8
- New recommendation that for older children, integrated boosters are suitable for use if adjacent to a curtain airbag

Consensus-Based Recommendation 4.2 (seating position for child restraint users):

- Removal of advice to use centre rear position for children seated in booster cushions

Consensus-Based Recommendation 5.8 (inflatable seat belts and child restraints):

- Advice that child restraints should only be used in seating positions with inflatable seat belts if advised to be safe by both vehicle and child restraint manufacturer.

Recommendation 5.7 (seat belt pretensioners)

- New advice that it is safe for children in child restraints and booster seats to sit in seating positions equipped with seat belt pretensioners

Recommendation 6.7 (seating posture):

- New recommendation to ensure child is in good upright seating posture when travelling

Recommendation 6.10 (ISOFIX):

- Additional advice that there is no evidence to recommend ISOFIX compatible restraints over restraints installed with a seat belt

Practice Point 6 (small infants):

- New practice point advising parents of small infants (<2.5kg) to use rear facing restraints designed for low birthweight infants until they get good fit in a standard rear facing restraint

Practice Point 7 (preterm infants and apnoea):

- New practice point advising parents of premature infants to minimise time in the child restraint and observe the child in the restraint to minimise the risk of apnoea (stopping breathing)

Minor changes:

- Altered wording on consensus-based recommendation use of extended rear facing restraints (Type A4) noting no recommendation can be made about their safety in comparison with forward-facing restraints for children over 12 months of age who have outgrown their Type A1 or A2 restraint. (CBR 1.6)
- Altered wording on consensus-based recommendation use of extended forward facing restraints (Type G) noting no recommendation can be made about their safety in comparison to booster seats for children who have outgrown a Type B restraint (CBR 1.8)
- Addition of advice to check for missing components in second hand restraints (CBR 2.16)

10 Appendix 4 - Summary of responses to public comments received

Below is a *summary* of the responses to more than 100 comments received during public comment for the updated National Best Practice Guidelines on the Safe Restraint of Children Travelling in Motor Vehicles, developed jointly by Neuroscience Research Australia and Kidsafe. There were many minor editorial, stylistic, terminology and wording changes suggested, that are not listed in detail below, but which have been addressed. The revised document has had thorough editorial and stylistic checking done.

The responses (summarised below) were prepared by the Technical Drafting Group, and changes reflected in the revised Guidelines. The responses were reviewed by the Technical Drafting Group who subsequently suggested changes to the Guideline. These changes are summarised below. The revised Guideline was then submitted to NHMRC for approval after endorsement by the developing organisations and project Steering Committee Organisations.

Major Issues Raised:

1. Some clarification of the 'strength' of the wording used to recommend practices when there is a legal requirement that is relevant to the practice.
    - Incorporated information around language and legal requirements into introduction of the Plain English Summary to ensure clearer understanding on the use of terminology in the guidelines.
    - Currently most recommendations use the word 'should', a lot of feedback suggesting text is reworded to use the word 'must'. Amendments were made to text and the word 'must' is used when it is associated with a nationally consistent legislative requirement.
2. Clarification on the transition point from Booster seat to adult seatbelt after removal of the standing height measurement of 145-150cm from recommendation text
    - Revised wording to be consistent with 'can fit within it' as per other recommendations.
    - Updated response text reflecting booster/seatbelt gap, evidence around booster effectiveness in this age range.
    - Maintained the focus on the use of the '5 step test' as the best measure for determining suitability of a child travelling without a booster seat.
3. Clarification on the wording around the use of accessory items when they are 'not supplied by the manufacturer with the restraint'.
4. Clarification that children with additional needs (physical, cognitive or behavioural) are not specifically covered by these guidelines, and the adoption of consistent terminology.
    - This has been further clarified in the scope of the guidelines, and reference made to the need to individually assess children with additional needs, in line with the guidelines embodied in AS/NZS 4370, which have been included in the relevant Practice Point.
5. Clarification of text around evidence for recommendations to include "peer reviewed published" as some supporting evidence presented in submissions during public comment doesn't meet the guidelines criteria (e.g. not peer reviewed).
6. Clarification of suitability of using child restraints in side facing and rearward facing seats if there are no other options available.
    - Removed allowance for use of restraints on side facing seats in 'troop-carrier' vehicles in the NT, as no longer legally allowed.

- Removed words ‘unless no forward facing seating positions are available’ to ensure recommendation is clearer.

7. Clarification of when a child restraint should not be re-used after a crash.
   - ‘Moderate to severe crashes’ was previously defined in the text. This has been clarified further, and will be included in the consumer documents developed from the guidelines.
   - Included reference to ‘damage may not be visible’ to the text.
8. Recommendation that seatbelt extenders are not recommended expanded to include additional points if their use is unavoidable.
9. Clarification on the use of ‘Parents/Carers’ throughout document when the driver of the motor vehicle is deemed responsible under legislation and this may not always be the ‘Parent/Carer’.
   - The guidelines text was revised, specifically in relation to Practice points 5-7. All other references appeared appropriate, and others have been amended as recommended.
10. Recommending not to allow twists in harnesses
    - Current laboratory studies have shown that while 1-2 twists do not compromise restraint performance unless they allow additional slack in the harness, when combined with other minor forms of incorrect use, the effect can be cumulative.
    - The recommendation was reworded to include mention of avoiding twists in harnesses, including the plain English summary text.
11. Recommendations for how to present information for consumers
    - Plain English summary would be better presented as recommended website content
    - Consider providing plain English summary in several other languages (CREP encourages this for instruction manuals)
    - Consider adding some diagrams to illustrate the terminology used in the glossary.
    - Development of a quick reference guide – a series of diagrams and captions for the guidelines.
    - The recommendation was reworded to include mention of avoiding twists in harnesses, including the plain English summary text.
    - These suggestions will be considered during the development on the consumer documents where funding is available and usage is noted in the dissemination plan.

A full summary table of the comments received in relation to the draft recommendation, additional evidence presented, response and subsequent action are provided below.

Recommendation	Comment/Submission	Supporting Evidence	TDG Agreed Response/Action	Final Response
1.1 (Recommendation) *The use of any restraint is preferable to not using a restraint.*	• Rear facing until 4 years minimum using torso length and weight on extended rear facing seats • No maximum rear facing age	Nil	None - this recommendation is only about whether to be restrained or unrestrained. The evidence for fit around shoulder height labels and shoulder height vs strap height is stronger than a specific torso length. Weight is not a significant limitation, as restraints are tested with larger dummies than the maximum aligned with the upper age range. There is insufficient evidence to recommend rear facing up to 4 years of age.	No further action required
1.3 (CBR) *Parents/carers are encouraged to exhaust all options for restraints in the child's current or 'recommended' category before transitioning them to the next category of restraint, except for the cases noted in recommendations 1.6 and 1.8.*	• Booster seat use until 13 years or once the child's torso has reached the vehicle manufacturers specified recommendations for correct seatbelt placement • Minimum 12 months rear facing • Harnessed till minimum 8	Nil	Boosters to fit all children up to age 13 are not available so cannot be recommended. Already addressed There is no evidence to support the use of harnessed seats up until 8 years of age compared to boosters.	No further action required
1.5 (Recommendation) *Children, from birth, should use rearward facing child restraints (RFCR) for as long as they fit within them.*	• Alteration to wording: Children, from birth, to at least 6 months of age, must use rearward facing child restraints (RFCR) for as long as they fit within them.	Same text edit to be applied to section 6.1.1; R1.5	The guidelines specify that best practice, which is the focus of these guidelines, differs from the minimum required by law. TDG reviewed text explaining best practice vs legislation, and agreed to add additional explanation to plain English summary	Additional explanation added to plain English summary.
• *For restraints certified to AS/NZS 1754(2004) or earlier which do not have shoulder height markers, the sign of the child having outgrown the restraint is when the child's shoulders are above the top shoulder harness strap slot for rearward facing use.* • *For restraints certified under AS/NZS 1754(2010) or later, the sign of the child having outgrown the restraint is when the child's shoulders are above the upper shoulder height marker for rearward facing restraint use.*	• As per the manufacturer's specifications in the supplied manual for these restraints (AS/NZS 1754: 2004) the time to turn forward facing would be determined by the recommended weight. A1 - up to 9 kg, A2 - Up to 12kg.	Manufacturer instruction manual	None - Weight is not a significant limitation, as restraints are tested with larger dummies than the maximum aligned with the upper age range. This is unchanged from the 2013 edition – extensive discussion at the time and subsequent discussions warrant no change to recommendation text in update. Weight ranges were required guidance in earlier versions of AS/NZS 1754 and was not evidence based.	No further action required

Recommendation	Comment/Submission	Supporting Evidence	TDG Agreed Response/Action	Final Response
1.6 (CBR) *Restraints designed for extended rearward facing use up to approximately 2-3 years of age are now available (Type A4). These are an acceptable alternative to use of a forward facing child restraint for children who fit within them.*	• It would be wonderful to use this point to establish that an upper age limit does not apply as there is current misinformation around '4 years' of age being a law maximum for Rear facing. • CBR 1.6 and 1.8 Type A4 and Type G restraints respectively are appropriate and welcomed to keep up with developments in the child restraint industry. • Type A4 -Suggest re-word: These are acceptable alternative to use in the place of a forward-facing child restraint for children who fit within them.	Nil	Agreed to clarify further in the supporting text. Same shoulder height transition as 1.5 applies here – add to text. None required None – the suggested revision is unclear which restraint child fits in.	Added text applicable to 2010 Standard height marker transition as per 1.5 to 1.6 as well as including in main text. None
1.7 (Recommendation) *Children should use forward facing child restraints (FFCR) with an inbuilt 6 point harness (Type B) system from the age that they outgrow their rearward facing infant restraint, until their shoulders are above the maximum allowable height for their forward facing restraint.*	• Alteration to wording: Children, 6 months but less than 4 years old, must use forward facing child restraints (FFCR) with an inbuilt 6 point harness (Type B) system from the age that they outgrow their rearward facing infant restraint, until their shoulders are above the maximum allowable height for their forward facing restraint • Use of mm is used and in the plain English summary section above cm is used • Suggest adding in the weight requirement as per comments in 1.5 • There is also misinformation about children not being able to use a harnessed seat (legally) past 7 years old. I'm just wondering if this could be addressed somehow too.	Same text edit to be applied to section 6.1.2; R1.7	The guidelines clearly specify that best practice, which is the focus of these guidelines, differs from the minimum required by law. TDG reviewed text explaining best practice vs legislation, and agreed to add additional explanation to plain English summary Accept correction and use consistent units of cm. None - This is unchanged from the 2013 edition. Agreed this could be clarified further in the supporting text - amend text as per 1.5.	Additional explanation added to plain English summary. Amendment made to all guidelines documents. Text amendments made.
1.8 (CBR) *Restraints designed for extended forward facing use with an inbuilt 6 point harness for children up to approximately 8 years of age are now available (Type G in AS/NZS 1754). These are an acceptable alternative to use of a booster seat for children who fit within them.*	• It is inaccurate to state that there is currently no field or laboratory testing research with Type G restraints. A laboratory test research had been done in this field comparing the crash protection performance of a Type G restraint with a booster seat using a full frontal impact test … It is strongly recommended to include a guideline that when using a Type-G restraint, safety may be improved by providing extra space in front of the child occupant, for example by moving the front seat forward.	Further details of the research outcomes to support the above comments can be found in the reference below: Suratno, B., Leavy, D. Sherry, D. and Lai, A. "Are Type-G Child Restraints (Large Forward-Facing Restraints with Inbuilt Harnesses) Safer than Booster Seats? A Preliminary Crash Test." Proceeding of the 2018 Australasian Road Safety Conference 3 – 5 October 2018, Sydney, Australia. https://acrs.org.au/files/papers/arsc/2018/JACRS-D-18-00141-Suratno.pdf	The TDG discussed the research referenced in this comment. Clarify in the text that there is no "peer reviewed literature" on this. The suggested reference is not peer reviewed, and is a single test of a single restraint. Include a statement around further research being required.	Added "peer reviewed published" to supporting text for CBR 1.8, and note that further research is required.

Recommendation	Comment/Submission	Supporting Evidence	TDG Agreed Response/Action	Final Response
	• Type G - Suggest re-word: These are an acceptable alternative to use in place of a booster seat for children who fit within them. • These changes reflect the best practice principle and our advice to keep children in their current child restraint type for as long as possible, and as long as they have not outgrown their seat, before graduating to the next type of restraint (e.g. rearward facing to forward facing, or forward facing to booster seat).	See also evidence supplied with 6.1 (CBR 1.3/1.8)	None - The suggested revision is unclear on which restraint children fit within. None required	No further action. No further action.
1.9 (Recommendation) *Once a child has outgrown their forward facing child restraint, they should use a booster seat (Type E or Type F in AS/NZS 1754) until they are too tall for it or can achieve good seat belt fit as assessed by the '5 step test' in the vehicle they are riding in. Most children up to 10-12 years of age will require a booster seat to obtain good belt fit.*	• Use language "until they are too tall for it", consider removing. This could be misunderstood as 'too tall' for the existing seat when in fact there could be another seat that would allow the child to be safely seated in a suitable booster seat. • Great to see the emphasis being placed on good seatbelt fit for the transition from booster seat to adult seatbelt, rather than a specific height or age. • Support the use of the 5 step test however, suggest adding "Good seatbelt fit is attained in most vehicles when the child is around 145cm." Many parents use this as a guide and once their child is around this height they will bring them in to see if they can come out of a booster. Use in conjunction with 5-point test.		TDG discussed together with all comments on recommendation 1.9. Agreed to change wording to be consistent with 'can fit within it' as per other recommendations.	Amendment to wording made.
	• We acknowledge that the 5-step test is the best way to determine good seatbelt fit since it accounts for body proportions and seat geometry. We are also correspondingly supportive of CBR1.12 which states that the 5-step test should be used to determine whether a child is big enough to obtain optimal protection from an adult seatbelt in a particular vehicle. However, firmly believes height as a guiding indicator should not be removed because it remains evidentially sound and is also a simple and effective guide for parents/guardians to gauge when the child might have good seatbelt fit, which can be	Thus, we strongly advocate that the guidance relating to height remain in the updated best practice guidelines recommendation about when children are able to attain good seatbelt fit and transition from a booster seat to adult seatbelt. This height recommendation would be a precursor for parents/caregivers to think about and perform the more detailed 5-step test. Several references provided as evidence: • Morse et al. (2017) examined the validity of the typical age (>8 years), height (>4 feet 9 inches, i.e.	TDG discussed this issue at length, and reached unanimous agreement that using standing height did not reflect 'best practice' according to the evidence. TDG considered whether we could reword to better clarify that children are highly unlikely to get good belt fit before this age range rather than an actual transition point, to avoid future focus on this as a transition. As noted in the evidence review, the 145cm height is not an accurate marker of good belt fit due to large variations in vehicles and children. The guidelines are about 'best practice',	Text updated to more clearly present the booster/seatbelt restraint gap and limited evidence of booster effectiveness in children beyond 7 years of age. Also added to 1.12

Recommendation	Comment/Submission	Supporting Evidence	TDG Agreed Response/Action	Final Response
Recommendation 1.9 cont…	further tested in more detail and more precisely with the 5-step test.	>145cm), and weight (>80 pounds) standards, as determinants of adequate booster/seatbelt fit, as measured by the 5-point fit test (Similar to the 5-step test, with the additional question of whether the child's feet are planted firmly on the vehicle floor). • While it was found that it was best to directly use the 5-point fit test to assess proper fit, the 4 feet 9 inches rule was a better predictor of proper fit than weight or age which predicted proper fit poorly.	and the Morse et al reference provided supports this. TDG unanimously agreed that the standing height measurement would not be reinstated.	No changes. Update response text reflecting booster/belt gap, evidence around booster effectiveness in this age range.
	• Generally agree with the removal of a standing height measurement for indicating transition from booster seat to adult seatbelt. There are several different height measurements quoted around the world and too many mixed messages. As with the reasons why the Australian Road Rules reference age instead of quoting measurements and weights, parents often are unaware of their child's actual height, and are better guided by an indicative age. In addition, consideration on when to consider transition to an adult seatbelt alone should only occur once the child has outgrown booster seat, and then be guided on how to visually check whether they are ready or should look for other restraint options (Five-step test). However we believe the challenge will be accurately communicating these messages in the community. In consultation with consumers we will need to identify the best method to communicate good seat belt fit requirements for the transition to adult seat belts, including the '5 step test'.	• Results inconsistent between vehicle type which concurs with explanation in updated guidelines (Bilston & Sagar, 2007; Huang & Reed 2006). • Nevertheless, as age – a poorer predictor of proper fit – is included in the guidelines and legislation, then height, which is shown to be a better predictor – must also be included. • A literature review conducted by C-MARC for the Road Safety Commission in WA on the transition of children to standard seatbelts concluded that while there is little evidence about a specific appropriate transition point, current research points to transition based primarily on height, instead of age or weight (Hobday, 2018). • More research is needed to determine the ideal transition height from booster seat to seatbelt. While the recommended height transition might need updating, height as an indicator of when a child might be ready to move to an adult seatbelt should remain in the guidelines.	Kidsafe to identify in consultation with the *consumer representative advisory group* and extended consumer consultation, the best method to communicate good seat belt fit requirements for the transition to adult seat belts, including the '5 step test'. Develop clear media strategy in preparation for guidelines launch to ensure clear and consistent communication of booster-seatbelt transition and 5 step test	Development team is working on strategy utilising consumer representative advisory group and Kidsafe national contacts.

Recommendation	Comment/Submission	Supporting Evidence	TDG Agreed Response/Action	Final Response
		• The potential of the best practice guidelines to influence and be ingrained in legislation surrounding child restraint use indicators of appropriate restraints should be accessible, quantifiable and easily translated into enforced rules. Hence, age and height indicators would serve this purpose of improving legislation better than the qualitative 5-step test. • From a communications perspective, height indicators using a single number or range is more appealing and easily remembered by parents/caregivers than the 5-step test, which requires more effort to remember and perform.		
1.11 (Recommendation) High back booster seats are preferred rather than booster cushions	• Consider adding "Booster cushions are no longer permitted under the Australian Standard and any that are available are either too old to continue using or are illegal to sell"	Based on 6.1.3 - it is now nearly 10 years since backless boosters were dropped from the standard.	No action - they are still in use and can legally still be used even though no longer manufactured and not recommended.	No change
2.1 (CBR) *For optimal safety, children should use their recommended restraint in taxis, private hire cars, and ride share services.*	• Good to see the inclusion of ride share services in the guidelines. The availability and use of these services has grown considerably since the guidelines were first written. • We support the addition of private hire cars and ride share services to the recommendation for children to use their recommended restraints in taxis. The child road safety issues are the same regardless of the purpose of the vehicle. • Requires an age appropriate car seat until minimum 8. • Support addition of this information. Should we mention that in some jurisdictions it is a requirement for ride share services?	This update to the recommendation must be publicly communicated to private hire car and rideshare drivers to ensure they align their understanding and behaviour with this best practice recommendation. Advice and support on the types of restraints available and how to use them correctly is readily available and can be easily conveyed to these relevant organisations and drivers. We further believe that this recommendation should be implemented as law; the exemption for taxis needs to be removed and there should be a requirement for all services to carry child restraints in a portion of their fleet for booked services.	None required Will be considered as part of overall consumer documents and communication strategy. This comment is not factually accurate. Checked that this information is in the supporting text. Variations noted in legal section indicated by '✋' symbol.	Included '✋' in table for 2.1-2.5 where applicable for consistency and reinforced "legislative requirements" throughout. Added note in section 6.2.7, Table 11 around requirements on ride share restraint requirements variations between State/Territories.

Recommendation	Comment/Submission	Supporting Evidence	TDG Agreed Response/Action	Final Response
2.2 (CBR) *For optimal safety, children should use their recommended restraint in rental cars.*	• Alteration to wording: For optimal safety, children under 7 years of age must use their recommended restraint in rental cars. • Rental cars are no different from private cars under the law. Suggest: "Children **must** use their recommended restraint in rental cars." • Consider adding "Drivers of rental cars are not exempt from the road rules requiring the use of appropriate child restraints for children in their vehicle"	In section 6.2; CBR2.2 replace the word "should" with "must"	Changed the wording to must where this is required by law. Add note to legal requirements text to clarify.	Included '✋' in table for 2.1-2.5 where applicable for consistency and reinforcement of "legislative requirements" throughout.
2.3 (CBR) *Child restraints are not recommended to be used in side-facing seats in 'troop carriers' and similar vehicles unless no forward facing seating positions are available.*	• Given the warning labelling requirements within the 1754 Standard I would have thought this needs to be a must not. Do you have any data to show what happens with restraints when fitted on side facing seats? Is there evidence to show that it is detrimental to the performance of the child restraint? • Apart from the Northern Territory example when historically a RFCR is able to be installed on a sidewards facing seat in a troop carrier (however with the RFCR still having a rearward orientation), it is my understanding that CRS are not able to be installed sidewards facing in accordance with manufacturer's instructions. Unless this has changed, the line "unless no forward facing seating positions are available" should be removed. • I believe recommendation 2.3 and its evidence base 6.2.2 needs to be reconsidered for the following reasons (Outlined in Evidence Column). My view is that the recommendation needs to be firmer i.e. Restraint devices should not be used on side facing seats. Instead, a more appropriate vehicle should be substituted.	Restraint manufacturers do not support use of restraints on side facing seats. I have contacted Northern Territory Motor Registry and the claimed Northern Territory approved modification to allow a rearward facing restraint to be fitted to a side facing seat does not exist anymore. NT advises that only one application for an engineering solution to fit a booster seat to a side facing seat has ever been approved. Their general advice is to either modify the vehicle by fitting forward facing seats or use another vehicle. The statement "Child restraints are not recommended to be used in side-facing seats in 'troop carriers' and similar vehicles unless no forward facing seating positions are available" could be seen as promoting an unacceptable practice. The consensus-based recommendation appears to be at odds with the background information provided.	TDG agreed to remove the words "unless no forward facing seating positions are available". Agreed to remove reference for allowance to use in NT, as no longer allowed for.	Recommendation and supporting Text amendments made.

Recommendation	Comment/Submission	Supporting Evidence	TDG Agreed Response/Action	Final Response
2.4 (CBR) *Children should not travel in vans or other vehicles that do not have appropriate forward facing vehicle seats upon which the appropriate child restraint can be properly installed.*	• Alteration to wording: Children under 7 years of age must not travel in vans or other vehicles that do not have appropriate forward facing vehicle seats upon which the appropriate child restraint can be properly installed.	In section 6.2.2; CBR2.4 replace the work "should" with "must"	Changed the wording to must where this is required by law. Add note to legal requirements text to clarify.	Included '✋' in table for 2.1-2.5 where applicable for consistency and reinforcement of "legislative requirements" throughout.
2.5 (CBR) *Children should never travel unrestrained in vans, non-passenger parts of a vehicle, such as luggage compartments of cars and station wagons, or the trays of utility vehicles and trucks.*	• Alteration to wording: Children must never travel unrestrained in vans, non-passenger parts of a vehicle, such as luggage compartments of cars and station wagons, or the trays of utility vehicles and trucks. • Once again this is required by law and should be a 'must not' statement.	In section 6.2.2; CBR2.5 replace the work "should" with "must"	Changed the wording to must where this is required by law. Add note to legal requirements text to clarify.	Included '✋' in table for 2.1-2.5 where applicable for consistency and reinforced "legislative requirements" throughout.
2.10 (CBR) *If a child between 4 and 7 years of age is seated in an additional seat which has only a lap seat belt available, they should use a child safety harness with the lap-only seat belt.*	• SA legislation only requires that 4 -7 years use the provided lap/sash seatbelt or lap belt with harness. There is no requirement to use a booster. In most cases a booster would raise the child up too high with the potential for their head to make contact with the roof of the vehicle. • Alteration to wording: If a child between 4 and 7 years of age is seated in an additional seat which has only a lap seat belt available, they may use an Australian Standard approved booster cushion with a fastened and adjusted child safety harness with the lap-only seat belt.	In section 6.2.3; CBR2.10 replace the wording to say "they may be in an approved booster seat secured with a child safety harness with the lap-only seat belt.	Edit wording in 2.10 to clarify that this is only if they can meet the 5 step test and do not need a booster seat. Originally CBR 2.6-2.10 were meant to be read together, but recommend rewording as suggested to ensure not misinterpreted.	Text amendments made to 2.10.

Recommendation	Comment/Submission	Supporting Evidence	TDG Agreed Response/Action	Final Response
2.11 (CBR) *For children aged 4-8 years, add-on high back boosters are preferred over integrated booster seats.* *For older children, integrated boosters are suitable for use in seating positions adjacent to a curtain airbag.*	• <u>Alteration to wording:</u> Change 8 to 7 for consistency with legislation • Support the addition of this information. • The guidelines could also note any effects of parent-introduced or child-introduced errors in use relating to the integrated booster restraint that was investigated in the cited study (Brown et al., 2017a) for Recommendation 2.11.	Specifically, while parents found integrated boosters easier to use and made fewer installation errors compared to add-on boosters, there was a significantly larger number of use errors for the integrated boosters (E.g. child leaning sideways or forward enough for sash belt to slide off the shoulder; unbuckling seat belt; placing the sash belt under the arm; holding sash belt away from body). Such misuse would lead to children being not optimally protected by the integrated booster in real-world situations. Thus, the larger potential of misuse by the child occupant should also be another point of consideration in support of Recommendation 2.11.	None - Boosters are not only for children up to the minimum required by legislation. None required TDG agreed to add further explanation in the supporting text around why the recommendation is different for different age children.	Text edits made to 2.11.
2.13 (CBR) *On long distance coaches, children should use a size-appropriate restraint. If the size-appropriate restraint is a rearward or forward facing child restraint, it should be correctly installed in one of the supplied seating positions equipped with top tether strap anchorages. If these seats or anchorages are not available, children over 1 year of age should use a lap-sash seat belt and children under 1 year of age should be seated in their own seating position if possible.*	• Clarification and questioning of the recommendation that when an appropriate CRS isn't available in a coach, a child under 1 year of age (regardless of age eg. 1 week old) be seated unrestrained in their own seating position. This recommendation could be better aligned with the option available when using WA taxis, where parents have the options of holding on their laps or seating in their own position, a child under one year.		Agreed to leave CBR unchanged - little evidence around this issue apart from that cited in previous version of guidelines As per 2013: There is little evidence about whether children under 12 months would benefit from the use of a seatbelt on a long distance coach. It was decided that the recommendation should be that 'best practice' for all children is to be restrained in their size-appropriate restraint on long distance coaches, irrespective of age.	No action.
2.15 (CBR) *Restraints older than 10 years should not be used.*	• Illegal to use if over 10 years old		None – there is no law requiring this.	No action.

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2.16 (CBR) *Restraints that have been previously used should be inspected for missing components, wear and degradation before use. Damaged restraints should not be used, and should be disposed of in a way that ensures they cannot be re-used.*	• We support the addition of advice to check for missing components in second hand restraints. Research done by We found that approximately 25% of parents only had second-hand restraints which were handed from family or close friends. For this substantial proportion of parents, this additional precaution is warranted to ensure that even if the second-hand child restraint is undamaged, the seat still needs to be checked properly before used. • Support the inclusion of this information.		None required None required	No action. No action.
2.17 (CBR) *Restraints that have been in moderate to severe crashes should not be re-used, and should be disposed of in a way that ensures they cannot be re-used.*	• We have considerable experience in this area given we assess and replace child restraints when claimed through insurance. This statement surprised me as this is not what is stated in the Standard and quoted in manuals - *6.2.6 (CBR 2.17) Moderate to severe crashes include those where any of the following occurred: there were serious injuries to any vehicle occupant, any airbag deployed, there is any visible damage to the child restraint, the vehicle was unable to be driven away from the crash, or there was any damage to the door nearest the child restraint.*	All child restraints are manufactured to Australian/New Zealand Standards which requires us to advise users of child restraints to "Destroy the entire restraint if it has been in use in a severe crash, even if no damage is obvious". The joint Australian/New Zealand Standards committee CS/85, advise that this statement applies whether a child was in the child restraint or not. We consider a "severe crash" as being one where the main body structure of the vehicle is distorted.' There are many instances where the crash is minor but still the car cannot be driven away from the crash e.g. damage to mudguard. Where it is difficult to determine the level of crash or where glass may have fallen into the restraint, the restraint is replaced. Where has this advice regarding airbags, not being able to be driven away, etc. originated?	TDG discussed - Edit wording to note that restraint damage may not be visible. Note: this was unchanged from 2013. The Standard statements are not evidence based.	Recommendation and supporting text edits done to ensure it is clear that restraint damage may not be visible.

Recommendation	Comment/Submission	Supporting Evidence	TDG Agreed Response/Action	Final Response
3.4 (CBR) *Buckle covers and other devices to stop a child from escaping from a restraint are not recommended. Behavioural solutions are preferred.*	• We suggest that the use of buckle guards and other devices should only be used when prescribed in accordance with AS/NZS 4370.	Buckle guards, when prescribed in accordance with AS/NZS 4370, can assist in supporting safe transport - in particular for children with Autism Spectrum Disorder (ASD). We note that there are no formal studies on buckle covers and other devices. We recognise the potential risks associated with removing a child from a restraint in an emergency when one of these devices is used, together with the potential for a child to quickly learn to operate such a device, negating its benefits. We agree that behavioural solutions are preferred.	None - covered in practice points, and guidelines scope. Guidelines not aimed at children with disability.	No action
3.5 (CBR) *Padding, pillows, cushions and blankets or wraps that surround the head or neck, are positioned behind the head, or within the harness of a restraint are not recommended.*	• Add clarity on the padding used. It is acceptable to use padding that comes with the CR but the use of accessory padding is not recommended.		Agreed to clarify in the text to add 'not supplied by the manufacturer with the restraint'	Amended CBR 3.5 text to include 'not supplied by the manufacturer with the restraint.'
3.7 (CBR) *Seat belt extenders are not recommended to be used if the buckle is located over the child. Great care must be taken not to introduce seat belt slack when used, and that both extender and main seat belt buckle are latched.*	• Seatbelt extenders are not generally recommended at all, also due to the complacency in quality with people purchasing them online and not at their car dealership. They are an added point of failure and designed for adult passengers unable to safely fit a vehicles seatbelt.		Agreed to amend text and include: 'If their use is unavoidable, the buckle should not be located over the child.'	Text amendment made. Added between recommendation sentences. Changed 'must' to 'should' in this CBR to ensure consistency.

Recommendation	Comment/Submission	Supporting Evidence	TDG Agreed Response/Action	Final Response
3.9 (CBR) *Add-on chest clips designed to prevent the child from removing his/her arms from the harness, other than those supplied with the restraint or certified under AS/NZS 8005, are not recommended. Behavioural solutions are preferred.*	• To support the safety of children, in the context of current practice and product availability, it is our recommendation that add-on chest clips only be used when prescribed in accordance with AS/NZS 4370. Section 2 of this standard notes that compliant accessories (i.e. those that comply with AS/NZS 8005) should be considered in preference to non-compliant accessories.	We note that add-on chest clips have not been well studied and there is no real-world injury data. However, add-on chest clips are often prescribed by allied health professionals in accordance with AS/NZS 4370. This process ensures that the use of the chest clip is prescribed in accordance with the overall assessment of the child's needs and includes a review period. Allied health professionals report however that parents/carers often self-prescribe, and this is assisted by products being marketed as legal for use. In some cases, this may mean that the child restraint no longer complies with the relevant road rules for legal use. The design of some add-on chest clips is to intentionally make it difficult for the child to undo – which as noted in this recommendation, can create a potential risk associated with the increased difficulty of removing a child from a restraint in an emergency when one of these devices is used. The Houdini Stop is an example of a popular product which is widely available. In most jurisdictions this product is only legal to use when complying with exemption from seatbelt provisions (or similar).	None - covered in practice points, and guidelines scope. Guidelines not aimed at children with disability.	No action.
3.10 (CBR) *Sun shades or insect nets which cover the child and restraint are not recommended.*	• In addition to language used, consider adding "blankets or other cloths" as some parents use the muslin cloths as a type of sun protection, especially on capsules.		Agreed. Add to items list "blankets or other cloths" to make statement broader	Amendments included in CBR and supporting text.
4.1 (Recommendation) *Children up to and including 12 years of age should sit in a rear seating position.*	• Consider including "unless all other rear seats are occupied by younger children"		TDG considered whether to clarify in the supporting text and agreed to review text again - no change to recommendation text.	Reviewed and the point is well covered in 4.2 and does not need to be stated here.

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4.2 (CBR) *When deciding on the position of a child using a child restraint or booster in the rear seat, the most appropriate choice of seating position will have as many of the following attributes as practicable:*	• Comment on removal of advice to use centre rear position for children seated in booster cushions: Instructions on these boosters state that they must not be used in the outboard position.	My understanding is that there was some concern around lifting a child up on the side where the head could make contact with the pillar of the vehicle.	None - Unaware of evidence around the suggested point, but there is evidence for not using them in the centre position.	
4.2 (CBR) cont… *9. Adequate clearance from the seat in front for RFCRs to reduce the risk of head contacts, especially in third row seats.*	• "It is noted that the study by Tylko (2011) – cited as evidence for the addition of advice to check for adequate clearance from the front seat for children in rear facing restraints to reduce the risk of head contact especially in third row seats – may have been inaccurately interpreted. Thus, while we agree that further research in this area has to be undertaken, the study cited for the newly added advice should be reassessed to ensure the best practice guidelines accurate reflect the evidence available." • Agree clarity for "adequate clearance" - check recommendation(s) by the CR manufacturer • Comment on addition of advice to check for adequate clearance from the front seat for children in rear facing restraints: *Support the inclusion of this advice particularly when there is moveable head rest within the restraint. Should be checked with the head rest in the 'worst case scenario' setting. Many retailers put it in the car without head rest fully extended to the shoulder height marker for FF use.* • Point 9 is confusing. While the explained issue is that they slide up the rear facing restraint and hit their head on the back of the front seat in frontal crashes. Sometimes called 'ramping'. While this wording is basically saying that they need to leave enough space so the kid's head won't hit the seat in front. It needs to be reworded so that the recommendation is clear.	As noted in this CBR, the study notes that the child restraints that were tested when installed in the third row behind a second-row bench seat were associated with higher head accelerations more frequently than restraints installed behind the driver or the right front passenger seats. However, contrary to what was noted in the draft updated guidelines, it could not be determined whether this association was because of spacing variations between the RFCR and the seat in front, or the typically higher rigidity of the second-row seats (Tylko 2011, p. 5). It was also stated that "The perception that greater clearance between the infant/child seat and the front row seats offers better protection to a rear facing child was not supported by the findings in this study. While the available distance between the infant seat and front row seats was not measured prior to the test, not one of the 15 infant/child seats that were initially touching the seat back at installation was found to result in a head acceleration of 80g or greater. This blocking effect prevents the seat from gaining the necessary speed to forcefully strike the seat back. It may also reduce exposure of the head by limited the amount dummy occupant excursion towards the upper edge of the seat." (Tylko 2011, p. 10).	TDG discussed point 9 at length. Reviewed Tylko 2011 study and revised wording to match findings, in line with suggestion, since RF CRS clearance from back of front seat is not an issue of concern in that study.	Amended - Point 9 removed.

Recommendation	Comment/Submission	Supporting Evidence	TDG Agreed Response/Action	Final Response
5.1 (Recommendation) *Rearward facing child restraints are not recommended to be used in front seating positions where an active front passenger airbag is installed.*	• Rearward facing should be a **'must not'** compared to the forward facing given manufacturer's instructions.		TDG Advised no change, consistent with using must for legal requirements.	No change
5.3 (CBR) *If it is unavoidable to seat a child in a forward facing restraint or booster seat in a seating position where an active front passenger airbag is installed, the front seat should be pushed as far back as possible.*	• 5.3 & 5.4 Agree with wording. Consider adding to section 6.5 and tables A23 & A24 this reference: Paine M. et al (2015) "Crash Protection Offered to Small Occupants in an Offset Frontal Crash" Proceedings of 24th Conference on the Enhanced Safety of Vehicles. Retrieved from https://www-esv.nhtsa.dot.gov/Proceedings/24/files/24ESV-000337.PDF	These words are relevant: "...The [6yo] child ATD injury measurements also indicated a low risk of serious injury. The restraint system [with booster seat] appeared to work well with no sign of submarining or lap-belt penetration into the abdomen. It is likely that the head contact with the airbag would reduce head, neck and chest loads, compared with no airbag."	Reference not peer reviewed, so not included as it does not meet literature inclusion criteria	No change
5.4 (Recommendation) *It is not recommended that children up to and including 12 years of age be seated in the front seat of vehicles where active airbags are installed.*	• Vehicle manufacturers state 'under 12 years of age' - consistency of message.		None - vehicle manufacturers advice is inconsistent and not evidence based	No change
6.6 (Recommendation) *When using lap-sash seat belts, the sash belt should be positioned over the mid-shoulder, and not be worn under the arm or behind the back.*	• It is a requirement under the Australian Road Rules to wear the seatbelt properly fastened and adjusted so this should be a must not a should statement.		None - this is guidance on how to achieve good fit.	No change
6.7 (Recommendation) *Parents are encouraged to ensure that their child maintains a good upright posture with their head back against the seat when traveling in vehicles, particularly when sleeping, as poor posture, such as leaning against the car window, can increase the risk of injury*	• The use of phrases like 'encourage to ensure' is confusing. • Support the inclusion of this information. • We appreciate the importance of proper posture when children travel in vehicle and supports the inclusion of this new recommendation to ensure that children maintain a good upright seating posture when travelling. However, there are concerns about the practicality of this recommendation. Parents can encourage and educate their children to maintain good seating posture when travelling in vehicles, but it is difficult to correct unintentional postural changes that might occur when a child falls asleep.	It is unclear in the guidelines if there is an expectation of parents to reposition a sleeping child while driving. Furthermore, if a young restrained child falls asleep during a journey and unintentionally fails to maintain an upright posture, it is unrealistic and potentially unsafe for a parent who is driving to stop the vehicle to correct their position. This problem is exacerbated if there is no adult in the back seat to re-position the sleeping child. Recommendations provided should be practical and realistically possible to achieve, and the addition of Recommendation 6.7 should be considered with this point in mind.	TDG discussed. The guidelines are only suggesting that parents discourage children from sitting in bad postures to the extent that they can. Revise wording to say: Children should be encouraged to sit in an upright ... Add to supporting text: Parents should not use supplementary padding or accessories to achieve this, or lean over from the front seat to reposition a child while moving.	Amendments made according to TDG advice. Revised in PP6 & PP7 also – all other references appropriate. Additional sentences added to clarify parents shouldn't try to move children into better posture while driving.

Recommendation	Comment/Submission	Supporting Evidence	TDG Agreed Response/Action	Final Response
6.10 (Recommendation) *Approved restraints that can be used with ISOFIX lower anchorages should be used as instructed by the restraint manufacturer only in seating positions specified by the vehicle manufacturer. No recommendation can be made on the overall benefits of ISOFIX restraints compared to restraints installed using a seat belt.*	• We support the addition of advice that no recommendation can be made about the overall benefit of using ISOFIX compatible restraints over restraints installed with a seatbelt. However, whether a preference of the rigid ISOFIX system over the flexible ISOFIX system, or vice versa, is not mentioned. • We also note that Appendix A, Table A39 (p.143-144) includes Kapoor et al. (2011a) and Hauschild et al. (2018) as references for evidence statement 1; these studies were not included in Table 24 (p. 68) detailing the evidence statements supporting Recommendation 6.10.	Considering the different advantages and disadvantages across both ISOFIX systems, it would be helpful to parents and practitioners to include a statement comparing the benefits of the rigid ISOFIX and flexible ISOFIX systems. The guidelines are currently unclear if either ISOFIX system can be recommended over the other. If this is not possible based on the available evidence, this should be clearly stated and each ISOFIX system's benefits should be summarised in the recommendation. This would help parents and practitioners make informed choices when purchasing the safest restraint and giving advice about the safety of different child restraints respectively.	TDG discussed. Determined no further amendments to be included during this revision, as the current statements reflect the evidence base. Referencing issue to be addressed.	Referencing amended.
PP4 *Children with additional needs (whether these additional needs are medical, cognitive, physical or behavioural) require specialist, multidisciplinary, case-by-case assessment. Restraint use for these children should follow guidelines in AS/NZS 4370 "Restraint of children with disabilities or medical conditions in motor vehicles".*	• 2.7 Practice Point Page 15, 6.7.2.3 Practice Point 4: "Children with additional needs (whether these additional needs are medical, cognitive, physical or behavioural) require specialist, multidisciplinary, case-by-case assessment. Restraint use for these children should follow guidelines in AS/NZS 4370 "Restraint of children with disabilities or medical conditions in motor vehicles". • Broadly, it is recommended that the suitability of using an AS/NZS1754 child car restraint be explored in the first instance. If the child is at risk and their individual needs cannot be accommodated in an AS/NZS1754 approved child restraint, parents should partner with their child's allied health team to ensure correct prescription." • If an AS/NZS 1754 compliant child restraint is not suitable, then an individual prescription is required by a suitable medical professional, and a medical certificate provided, that should be carried in the vehicle if required by the local jurisdiction".	• Comments: We recommend the consistent use of "disability" throughout the document – e.g. as per 5.6.3 "Children with disability, due to a medical condition or behaviours of concern" • Comments: The current wording suggests partnering with the child's allied health team only if an AS/NZS 1754 child restraint is not suitable. We suggest deleting these words as the AS/NZS 4370 process is captured in the paragraphs that follow. The AS/NZS 4370 standard includes the prescribing of an AS/NZS 1754 restraint as the first option. • Comments: We suggest deleting this text and rewording to refer to the applicable laws in each jurisdiction. In recent times the legislation in a number of jurisdictions has been amended – to reference AS/NZS 4370 and AS/NZS 8005.	TDG reviewed PP4 and all references to children with disability and correct to use consistent wording Agreed. Agreed not to change this to be more specific due to potential for state legislation changes.	Review completed and amendments to text done. Glossary also updated. Reworded as suggested. No change

Recommendation	Comment/Submission	Supporting Evidence	TDG Agreed Response/Action	Final Response
	• There are specialist services available for assessing the needs of children with disabilities in each state and territory, and these can be accessed by contacting the local road authority.	• Comments: This is also inconsistent in each jurisdiction. We suggest deleting this wording and referring to allied health professionals.	Add reference to allied health team.	Amended wording.
PP6 *Parents or carers of small infants (<2.5kg) are advised to use a rear facing restraint designed to accommodate low birthweight infants until their child is large enough for a good fit in a standard rear-facing infant child restraint.*	• Support the inclusion of this information, however there is currently only one A0 product on the market and there is often installation issues, particularly in vehicles with heavy contouring. Harness fit and angle on the baby safety capsule is still far superior. We are currently working on a project which will support further product research in this area. • Query why the Practice Point was referring to infants less than 2.5kg rather than the 2kg referred to in AS/NZS1754:2013. • Pleased to see some guidance included for appropriate restraint of low birth-weight/ small babies		None The weight of the dummy used for testing is not really relevant to the fit, which is based on Clarke *et al*. Any child above 2.5kg could fit in a regular restraint.	Reviewed use of Parents or carers in PP6 & PP7.
PP7 *Parents of premature infants should minimise the time in a car seat, and observe the child while in the seat when possible, to minimise the risk of apnoea (stopping breathing).*	• Pleased to see some guidance for appropriate restraint of pre-term infants • This is excellent advice. I would possibly add that some restraints may not be compatible with low birthweight babies under 3kg, so check with a child restraint fitter. • We recognise the considerable body of work relating to practices supporting the safe transport of children born prematurely. In particular the American Academy of Pediatrics work, dating back to 1990, which has influenced various practices relating to hospital pre-discharge car seat challenge observation. This practice is most notable in the United States, with examples also in Portugal and the United Kingdom, to name a few. This Practice Point, whilst useful, only represents a very small part of the elements relating to supporting safe transport for children born prematurely, and if read in isolation could potentially be misleading. We believe further work is needed to better understand current practice and research relating to transporting premature infants.	Reference examples: www.childcarseats.org.uk – carrying premature and low birth weight babies evidence review Bras A, et al. Car Seat Challenge Test in the Neonatal Intensive Care Unit. 2019; 8(2):e080202.	None - this is addressed in PP6. Evidence for car seat challenge is inconsistent. No change to recommendation. Recommend further research in text.	Amendments to text addressed. Included in 6.7.4 Further research is required on this issue. Reviewed use of Parents or carers in PP6 & PP7.

Recommendation	Comment/Submission	Supporting Evidence	TDG Agreed Response/Action	Final Response
	This would inform a more holistic practice response. • Support the inclusion of this information.			
6.1 *Secondly, forward facing child restraints with internal harnesses that accommodate children up to approximately 8 years of age (Type G) are available, but there is currently no evidence to support a recommendation to either encourage or discourage the use of these restraints compared to well-fitting high back booster seats*	• In situations where the child falls asleep the 5-point harness holds the child in position whereas the booster with seatbelt tends not to. If the child moves out of position with just a seatbelt the seatbelt will not be positioned correctly and may cause further injury in a crash. Similarly, this is the case for non-compliant children that move the seatbelt out to reach something on the back seat or put under their arm for comfort.	This is what has been observed in the Safety Centre. (as per the research - Forward facing child restraints offer optimal protection for children who fit within them (Brown et al., 2006a; Zaloshnja et al., 2007).) Is this not enough to encourage Type G over booster seat use?	No change. Since there is also anecdotal evidence of poorer protection in at least one Type G, the statement remains true.	No change
6.2.2 *'troop carriers' and side facing seats.*	• Child restraint manuals not only recommend but they warn against using restraints on side or rear facing vehicle seats - 'Do not use on any vehicle seat which faces sideways or rearwards.' Suggest removing reference this. The legislation would prohibit the use of the front seat in preference to the rear seats as children up to the age of 7 years are required to travel in the rear row and there is currently no exemption for these vehicles. **See further comments in CBR 2.3**		As above - this should be changed.	Amended as per CBR 2.3 above
6.2.7 *Australian Legislative requirements for appropriate restraint use in non-typical situations*	• The Queensland Road Rules (QRR) exempts drivers of booked hire vehicles from the requirements to ensure that passengers under seven years are restrained in an approved child restraint, if there is no suitable approved child restraint available. • Ride share vehicles, such as Uber are considered booked hire vehicles in Queensland.		TDG agreed to double check the legal requirements referenced in guidelines document.	Reviewed and amended as per requirements.

Recommendation	Comment/Submission	Supporting Evidence	TDG Agreed Response/Action	Final Response
6.3 (CBR3.4/3.6/3.7/3.9) *Future designs of after-market accessories for this purpose that have been certified to AS/NZS 8005 may be considered for use if behavioural approaches fail.*	• Unfortunately, given that the 8005 Standard is not a compulsory standard, there aren't and are not likely to be any products certified to this Standard. Any accessory under the law would be considered a modification and therefore would require a medical exemption to be used legally. Likewise, fitting accessories (including seatbelt extenders), if not included for use in the child restraint manual, must not be used as the law requires that the manufacturer's specifications be followed. Modifications to the installation would need to be justified (e.g. special needs) and would need to be accompanied by a medical exemption.		TDG Reviewed wording and decided to add a comment that accessories not approved by the manufacturer or supplied with the restraint may be considered unapproved restraint modifications, and may require additional approvals in the supporting text	Added a sentence in the introductory text at 6.3 noting that accessories may be considered restraint modifications in some jurisdictions and thus require a medical or other exemption from the restraint laws.
1.4 (Fourth Bullet Point)	• (also see row 6.2 of Table 2.1). Include the word “twists”: all looseness, twists or slack removed.		Accept change recommended.	Amended as advised.