

Physical Skills Risk Assessments

Version 3.4 - 01/2024



Introduction

This document incorporates individual risk assessments of core Maybo physical skills and interventions which, based on a risk and needs approach and Training Needs Analysis (TNA), may be included in Maybo programmes covering adults or children. It provides a valuable resource to employers/services, trainers, staff and key stakeholders where Maybo methods are planned and deployed to help ensure everyone is aware of the related risks and how they can be reduced, both in training and operational use. Maybo cannot authorise the operational use of physical skills and interventions as this is the responsibility of the employer organisation/service provider.

This document includes skill specific risk assessments at the following levels:

- Personal Safety: Assault Avoidance and Disengagement Skills;
- Guiding Skills;
- Restrictive Holding and Escorting Skills;
- Highly Restrictive Holding Skills.

For the purposes of these risk assessments:

- The term 'adult' covers adolescents*, working age adults and older adults;
- The term 'child' covers children aged 12 or under.

* "The adolescent population can, for the purposes of a medical risk review, be considered as adults. Pre-pubescent children have additional vulnerabilities in terms of an increased risk of falls, an increased risk of head injury and an increased risk of damage to bony growth plates. We need to be very mindful of the emotional needs and coping strategies of children (and adolescents) and support them during and after any intervention." Dr. Bleetman

Any use of force carries risk of physical and psychological harm for everyone involved and restraints can, and have, ended in tragedy. Risks of harm are generally greater the higher the level of intervention used, both in training and operational settings. The goals of all organisations should therefore be two-fold:

- 1. To reduce the need for physical intervention, particularly restrictive interventions and practices
- 2. To reduce risk when such interventions are necessary through effective training, guidance and supervision

This document should be read in conjunction with (as relevant to role):

- Maybo Employer Guidance on the use and reduction of physical intervention which can be found on Maybo client portals or provided on request;
- Maybo Terms and Conditions and Licence Requirements;
- Maybo Physical Skills Training Risk Reduction Guidance: For those managing, administrating and delivering Maybo training;
- Maybo trainer and learner resources and aide-memoires that include guidance on risks, rights and responsibilities;
- Local laws and regulations and professional/sector guidance;
- Employer policies, procedures and guidance.

Staff should only use Maybo methods included in their training and certification.

Maybo training focuses on how to prevent and defuse conflict and behaviours of concern, emphasising alternatives to physical intervention. Staff supporting especially vulnerable groups such as children or people with complex needs should receive relevant additional training from their employer in how to recognise and respond to their needs. Maybo can provide a range of specialist modules to promote understanding of the needs of such groups. Organisations and individuals use Maybo methods at their own risk.



Justification

Physical methods should only be used when lawful and as a last resort when other methods have failed or are likely to fail and the risks of not intervening are greater than the risks in doing so. It is the responsibility of employers / service providers and employees to ensure compliance with the relevant laws and regulations that apply to them in their area of work.

Employees will individually need to justify and account for any use of force, to show that it was lawful and **necessary**, **reasonable** and **proportionate** in the circumstances and genuinely a last resort. Some low-level, non-restrictive contact may in certain situations be appropriate in providing support and reassurance i.e. touch can on occasion be positive.

Maybo provides a responsible training curriculum but does not give permission to people undergoing its training to use Maybo interventions in their work. It is the responsibility of the employer/service provider to permit, supervise, monitor and review training and operational use of physical interventions. Employers must inform Maybo of any concerns regarding Maybo training or methods and of significant injuries and/or learning that will help inform Maybo skills, programmes, risk assessments and guidance.

Planned Interventions

It is important to refer to this resource when undertaking person-centred planning when it is foreseeable that physical interventions may at times be necessary as a last resort to prevent harm. Maybo can provide access to a bespoke online **Personal Safety Planning Tool** with skills images to assist person-centred planning and promote restraint reduction and safety. The personal safety plan should sit alongside the care/support plan for the individual concerned to remind staff of proactive strategies to reduce and de-escalate behaviours of concern and risk situations i.e. alternatives to restrictive interventions.

It is important that personal safety plans are developed in consultation with key stakeholders, including the person the plan is for (as far as practicable) and their family/advocates. It is also important suitably qualified and experienced personnel are involved in such planning as part of a multidisciplinary team, including someone with competency and current certification in the Maybo methods being considered e.g. an in-house certified Maybo trainer.

These skills risk assessments consider risks associated with the training and operational use of interventions for the general population. However, a method of intervention that may be suitable for use with one person may be inappropriate and riskier for another, for example due to their physical disposition, health, sensory needs or trauma history. It is therefore important that the proposed planned interventions take into consideration the physical and mental vulnerability of each individual and are reviewed locally by appropriately qualified medical/clinical professionals.

Any adaptation of the Maybo techniques covered in these risk assessments could have substantial impact on their effectiveness and safety for both staff and service users. It is the responsibility of employers and services supporting the use of Maybo methods to ensure their trainers and operational staff are kept up to date with latest Maybo risk assessments and risk reduction guidance, which are made available in Programme Specifications, Trainer Resources, the Resource Centre on the Maybo website, and upon request.

Recognising Heightened Injury Risks

Most injury data Maybo can access relates to injuries on training courses delivered direct by Maybo trainers. We do not have a full picture of workplace incidents, however, risks and outcomes are likely to be magnified in a turbulent operational situation, especially if the fidelity of a technique is compromised e.g. due to poor skill application or a lack of Maybo trained staff available.



Key findings from Maybo's reviews of reported injuries related to the use or misuse of Maybo physical interventions include:

- Training injury data shows serious injuries are relatively rare for this type of training;
- Risks of injury during training generally increase with practice of higher-level interventions;
- During training, both staff applying the technique and the person to whom it is applied can suffer injury;
- Whilst the vast majority of reported injuries are minor and soft tissue related, it is important staff are aware of this risk in both training and operational settings;
- A significant proportion of reported training injuries are linked to <u>undeclared</u> pre-existing conditions, highlighting the need for training participants to receive adequate pre-course information, plus the Maybo safety briefing on their training course. Where participants do declare a pre-existing injury or condition, this will not automatically preclude them from completing the training but enables the trainer to discuss with them whether any modifications are practicable in order for them to participate in the training. Where either party has concerns or doubts about participation the individual should be referred back to their employer;
- Employers are responsible for ensuring staff are fit to perform their operational roles and to participate in training. Further guidance is available from Maybo with regard to access to training for staff with disabilities, and important considerations for staff who are pregnant who should not participate in restrictive skills training;
- Staff need to be especially vigilant to the risk of falls, which can result in serious harm, and must take particular care when moving, turning or re-directing people.

Review of reported injuries between July 2021 and December 2023 shows a substantial increase in the total number of staff trained in physical interventions compared to the prior (COVID dominated) period, yet a decrease in injuries and injury rates across all levels of PI training. This data also shows significant reductions in the proportion of PI training that includes restrictive and highly restrictive interventions, reflecting the efforts of Maybo and our clients in restraint reduction. While actual injury numbers are low, in percentage terms the 2021-2023 data highlights the prevalence of aggravation of pre-existing injuries/conditions. The data indicates more pre-existing conditions are being declared prior to participation in training than previously, consistent with increased emphasis on the importance of declaration in Maybo Training resources and guidance. It is important to emphasise that where a participant or trainer has concerns or doubts about participating in physical aspects of training that are not satisfied through additional control measures, they should not participate. Recent data highlights the potential for trips and falls, even during practice of low-level skills, emphasising the need for Trainers to control and supervise all skills practice and to manage environmental and behavioural risks. The greater the speed and forcefulness of practice, the greater the risks of injury.

Training Safety Considerations

It is important for trainers to follow Maybo Physical Skills Training Risk Reduction Guidance that outlines measures to reduce risk when teaching physical interventions.

UK Restraint Reduction Network Training Standards highlight the heightened risks of training injuries where active resistance-based simulations/role plays are included in training. Maybo does not recommend the use of active resistance-based simulations/role plays in its certified training programmes delivered by in-house trainers and instead provides safer methods to build competence and confidence. These include:

- Leading controlled practice drills as per videos in Maybo Trainer Presentations and Trainer Session Plans;
- Focusing on slow time practice and repetitions of skills then applying these through relevant sequences and transitions;
- The Trainer/s allowing themselves to be placed 'in hold' at times in order to provide further feedback and coaching to learners;
- Only permitting learners to offer low level resistance when in static holds and under the instructions and direct supervision of the Trainer;
- Walking and talking learners through relevant (i.e. foreseeable) risk situations and problem solving these using the Primary, Secondary, Tertiary Model.



Any method of training or practice of physical interventions that carries heightened risks should be subject to additional risk assessment and suitable control measures put in place, including the enhanced 1 to 6 supervision ratio set out below.

Supervision Ratios

The minimum supervision ratio during the practice of Maybo physical skills is 1 trainer for up to 12 participants. Where two trainers deliver a single course, the maximum number of participants is 18. A supervision ratio of 1 trainer to 6 participants is recommended (and in some cases required*) during the practice of skills that involve staff initiated transitions to the floor or holds on the floor. While reported injury rates on Maybo training is relatively low, injuries are more likely when groups practice these methods than with lower level interventions and they can be more complex to teach. Where a group size exceeds 6 participants, either a second Trainer certified for this level of training should be present, or, no more than 6 participants should practice at any one time and the duration of the session may need to be extended.

*A requirement for RRN BILD ACT Certified Training.

Complex and Heightened Risk Techniques:

Maybo considers that training/practice and operational use of highly restrictive methods (e.g. transitions to the ground and ground holds) can carry additional risk due to:

- More frequent and severe injuries reported during training compared to other Maybo levels of intervention, albeit still relatively rare for such training;
- Additional complexity in execution and trainability of these techniques which involve more staff and include transitions from standing to horizontal holds i.e. requiring increased physical capability of staff members and more team communication and coordination;
- Recognised risks related to forceful holds on the ground and their potential implications on breathing and circulation (as explained in Maybo's training resources).
- In addition to the above, these risk assessments highlight the risks of compromised breathing and circulation in seated holds, bed holds and on the Safety Pod.

Restraint risks are influenced considerably by the <u>method</u> used, the <u>position</u> in which a person is held and the <u>duration</u> of the restraint

Compromised Technique

Maybo risk assessments are based on each skill being applied as intended. Staff need to be made aware that if Maybo techniques are adapted or compromised (e.g. during a struggle) this can substantially increase risks to staff and the person held.

Risks increase with the level of force, method, position and duration of a restraint and where:

- There are insufficient trained staff present to apply the techniques safely and effectively;
- Staff are not applying techniques as they are intended, whether unknowingly e.g. due to skills fade, or have adapted them;
- There is a lack of leadership and supervision during a restraint;
- There is inadequate communication and monitoring of the well-being of the person/s involved during and post restraint.

No technique can be guaranteed to work in every situation and set of circumstances. Whilst staff must adopt as far as is safe and practicable the methods they have been taught, use of an alternative method, for example in an emergency scenario, is not necessarily unlawful. Use of alternative methods may however increase risks and must be reported and justified to the satisfaction of the employer.

The risks associated with using alternative and/or compromised methods have been highlighted in tragedies, including one where a person was held bent forward over a bed, and another where a staff member was pulled on top of a person.



Support in the Workplace and Maintaining Competency

It is important that employers and trainers are realistic with staff in terms of the considerable risks related to the use of physical interventions in the operational environment, where behaviours can be unpredictable and at times violent. Additional service-based support, guidance and training may be needed to build and maintain operational skills and confidence, which is best when based on foreseeable risk behaviours and highly relevant scenarios.

Employers and trainers need to emphasise the need for staff to continually assess a situation using their dynamic risk assessment skills (e.g. SAFERTM, POPS & SEALTM Test) to inform their decisions. Employees need to be realistic about their ability to successfully intervene with the people/resources available at the time, in light of the risks presented.

Psychomotor skills fade unless regularly practised and this can be significant within months of training. Maybo encourages employers to ensure staff maintain competencies between formal refresher and recertification training through supervised and safe 'structured practice'. Maybo provides additional guidance for employers and trainers to follow when delivering and practising Maybo skills and when conducting 'Structured Practice' within services.

It is important to seek support from in-house Maybo certified trainers and/or from Maybo if there are concerns over the use of Maybo interventions.

Subjective Experience of Person Restrained

In addition to physical health risks, it is important to recognise the impact restrictive practices and interventions can have a person's emotional and mental wellbeing. Restraint will be stressful and undignified for anyone and can be terrifying for a person who does not understand what is happening, for example, for a person who is psychotic, cognitively impaired or autistic, or, for a person who has experienced trauma and for whom physical intervention may be re-traumatising.

The independent study undertaken of Maybo Physical Interventions by Dr. John Parkes at Coventry University measured both the physiological and subjective experience of participants when held in certain methods and positions. The subjective ratings included fear, anxiety, confusion, disorientation and invasion of personal space. These were combined into an 'overall discomfort' score and no Maybo techniques were rated above 1 (on a scale of 1-4) suggesting the level of discomfort caused by the Maybo techniques in their own right is 'low'. The experience of a confused and frightened person being held in a stressful situation is of course likely to be quite different, but the point is that Maybo has taken care to ensure the methods themselves are designed to be as low arousal, comfortable, dignified and respectful as possible when used as a last resort.

Employees may also have been affected by trauma experienced in their past, whether in their private life or at work. Trainers may not be aware of this, so it is important to always be mindful that training may cause discomfort for some participants and potentially be re-traumatising.

First Aid Training and Medical Emergencies

It is good practice for trainers and operational staff who are trained in physical interventions to be trained in first aid and cardiopulmonary resuscitation (CPR), including use of automated external defibrillators (AEDs). AEDs should be accessible in services where restraint is foreseeable.*

Employers are responsible for ensuring that services whose staff are to be trained in restraint have undertaken a detailed risk assessment of first aid/life support training and equipment requirements which takes account of the risk profiles of techniques being taught.

Responsibility for making a determination as to the adequacy of provision is most likely to rest with the relevant regulatory body for the service and/or territory.

*The UK Restraint Reduction Network (RRN) places specific requirements on Services delivering training certified against the RRN Training Standards (refer to the RRN website for latest guidance).



Independent External Contributors

Dr Anthony Bleetman General observations by Dr Bleetman (2023)

Review of Physical Skills Injury Data (2015, 2019, 2021, 2024)

Review of Physical Skills Risk Assessments (2019)

Review of Maybo Physical Intervention Risk Assessment Guidance (2018)

Medical Review of Maybo Positive and Safer Handling (Children & Adolescents) Skills Risk Assessments (2017)

Medical Review of Maybo Physical Intervention Training Syllabus (2015)

Dr. Stas Lifshitz Review of Maybo Physical Intervention Risk Assessment Guidance (2018)

Dr. John Parkes, Coventry University Evaluation of the Physiological Effects and Subjective Experience of Maybo Restraint Techniques (2017)

Dr. Chris Van Eee A Biomechanical Assessment and Review of the Physical Skills and Restraint Techniques of the Maybo Conflict

Management Training Programme (2015)



Technique Risk Group: BOMB SHELTER

Adult Techniques: Bomb Shelter (Exit)

Child Techniques: Bomb Shelter (Hair Grab)

Intention: To protect the head from blows whilst escaping from a violent assault.

Key Observations: "A skill used in very volatile and violent scenarios and is about damage limitation rather than control. Given the unpredictability of these scenarios, injuries are likely and may be

serious and unpredictable. Training controls are adequate." Dr Bleetman.

"In addition to the risk of slips, trips and falls there is a risk of finger dislocation and fracture, and in the case of violent escalation in a real-life situation there is a risk of serious

injury, including injury to the head and face, even if the techniques are applied correctly." Dr Stas Lifshitz.

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
	Likely	Nil	Nil	Training to cover likely risk scenarios and proactive measures for reducing vulnerability to assault e.g.
Training	Possible	Minor soft tissue injuries to upper limbs Slips, trips and falls Emotional distress	Minor soft tissue injuries to upper limbs Slips, trips and falls Emotional distress	communication skills and safer working practices. Learners made aware of potential environmental hazards that increase risk of slips, trips and falls. Tutor provides safety briefing and instruction and
	Remote	Nil	Nil	controlled exercise as per Trainer Session Plans. Delegates do not strike each other or run.
	Likely	Soft tissue injuries	Minor soft tissue injuries to upper limbs Emotional distress	Staff aware and alert to personal and environmenta situational risk factors and hazards and warning sig
Operational	Possible	Injury from escalation of violence Slips, trips and falls Injury to hands/arms Emotional distress	Escalation of violence and injuries to other body parts Slips, trips and falls	/ indicators. Aware of guidance, exit paths, safe havens, safer positioning / proxemics and emergency communications and support. Staff consulted, briefed and practised on likely risk
	Remote	Clash of heads	Clash of heads	scenarios preventive strategies and safer working practices.



Technique Risk Group: ACTIVE PALMS

Adult Techniques: Active PALMS, Active PALMS Grab Prevention, Active PALMS Exit

Child Techniques: Active PALMS, Active PALMS Grab Prevention

Intention: To control space and position and help protect against aggressive grabs and blows.

Key Observations: "The highlighted risks are adopted from the similar skill that preceded 'Active PALMS' called 'Wipers' and the 'Active Palms: Moving past' assessment (now incorporated within

this assessment)." Dr. Bleetman.

"In addition to the risk of slips, trips and falls there is a risk of finger dislocation and fracture, and in the case of violent escalation in a real-life situation there is a risk of serious

injury, including injury to the head and face, even if the techniques are applied correctly." Dr Stas Lifshitz.

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
	Likely	Nil	Nil	Training to cover likely risk scenarios and proactive measures for reducing vulnerability to assault e.g.
Training	Possible	Slips, trips and falls Soft tissue injuries	Slips, trips and falls. Soft tissue injuries to upper limbs	communication skills and safer working practices. Learners made aware of potential environmental hazards that increase risk of slips, trips and falls. Tutor provides safety briefing and instruction and
	Remote	Nil	Emotional distress Dislocated or broken fingers	controlled exercise as per Trainer Session Plans. Delegates do not strike each other.
	Likely	Nil	Nil	Staff aware and alert to personal and environmental / situational risk factors and hazards and warning signs
Operational	Possible	Slips, trips and falls. Soft tissue injury Thumb/finger injury from blocked grabs	Slips, trips and falls Soft tissue injuries to upper limbs Finger injury	/ indicators. Aware of guidance, exit paths, safe havens, safer positioning / proxemics and emergency communications and support. Staff consulted, briefed and practised on likely risk
	Remote	Finger injuries if grabbing	Escalation of conflict Dislocated or broken fingers	scenarios, preventive strategies and safer working practices.



Technique Risk Group: RELEASES

Adult Techniques: Strong Clothing Grip, Parent Grip Release, Cradle Off, Cradle Up, Rear Strangle Relief, Active PALMS Release (Take a Drink)

Child Techniques: Cradle Off, Parent Grip Release and Active PALMS Release (Take a Drink)

Intention: To disengage from a grip or grab to a wrist, arm, neck or clothing.

Key Observations: "Grabs to the neck are potentially lethal in real life, avoid being grabbed by lowering your chin and using active PALMS. Dynamic motion against resistance may lead to muscle

damage, perform the exercises in a controlled fashion." Dr Stas Lifshitz.

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
	Likely	Nil	Nil	
	Possible	Slips, trips and falls Damage to fingernails (Cradle Off) Soft Tissue Injuries (Clothing Grab) Thumb/finger injury from blocked grabs (Clothing Grab)	Slips, trips and falls. Scratches from fingernails Soft tissue injuries to upper limbs (Clothing Grab) Finger Injury (Clothing Grab)	Trainer provides safety briefing and instruction and controlled practice as per Trainer Session Plans. Remind delegates they need not practice something that makes them feel uncomfortable or unsafe.
Training	Remote	Emotional distress	Emotional distress from prior trauma e.g. strangle Minor soft tissue injuries Joint strain: Upper limbs Rotator cuff injury Facial injury from self-impact Dislocation/break of fingers (Clothing Grab) Facial injury from self-impact (Parent Grip)	Relief from rear strangle only taught if relevant and by trainer/video demo only; not to be practiced by delegates.
	Likely	Nil	Nil	
Operational	Possible	Slips, trips and falls Minor soft tissue injuries Damage to fingernails (Cradle Off) Finger injury from blocked grabs (Clothing Grab)	Slips, trips and falls Soft tissue injuries and fingernail scratches Finger injury (Clothing Grab) Joint strain in upper limbs e.g. Parent Grip Subject may attempt to headbutt	 Staff aware and alert to personal and environmental / situational risk factors and hazards and warning signs / indicators. Aware of guidance, exit paths, safe havens, safer positioning / proxemics and emergency communications and support. Staff consulted, briefed and practised on likely risk
	Remote	Damage to thumb, fingers and wrist Upper limb joint and tendon damage Rotator cuff injuries	Rotator cuff injury Facial injury from self-impact Escalation of conflict Dislocation/break of fingers (Clothing Grab)	scenarios, preventive strategies and safer working practices.



Technique Risk Group: GUIDING

Adult Techniques: Single Cradle Guide, Paired Cradle Guide, Non-Contact Guiding, Hook and Cradle Guide, Double Cradle Guide, Assessment Touch

Child Techniques: Hook and Cradle Guide, Non-Contact Guiding, Cradle Guides, Supportive Prompt, Shepherding

Intention: To physically guide a person.

Key Observations: No specific comments

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
	Likely	Nil	Nil	
Training	Possible	Nil	Soft tissue injuries to digits	Trainer provides safety briefing and instruction and controlled practice as per Trainer Session Plans.
	Remote	Soft tissue injuries Slips, trips and falls	Slips, trips and falls Dislocated or broken fingers	
	Likely	Nil	Nil	Staff aware and alert to personal and environmental / situational risk factors and hazards and warning signs/indicators. Aware of guidance, exit paths, safe havens, safer positioning / proxemics and emergency communications and support. Staff consulted, briefed and practised on likely risk scenarios, preventive strategies and safer working practices.
Operational	Possible	Slips, trips and falls Soft tissue injury	Slips, trips and falls Soft tissue injuries to upper limbs Injury to fingers and thumbs	
	Remote	Slips, trips and falls Soft tissue injury	Escalation of conflict. Subject may attempt to headbutt Dislocated or broken fingers	



Technique Risk Group: REDIRECTION

Adult Techniques: Hook and Cradle Turn, Elbow Turn

Child Techniques: Front Shoulder Turn, Rear Shoulder Turn

Intention: To redirect or turn a person away from harm/towards safety, or to redirect a person/s assaulting another ('Rescue').

Key Observations: Specifically, for these techniques, Dr Bleetman recognises "there is a risk of rotational injuries to the subject's spine and an increased risk of fall and secondary injury."

"When guiding and turning people special care must be given to balance and risk of fall. Avoid bending the back either backwards or forwards." Dr Stas Lifshitz.

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
	Likely	Nil	Nil	
Training	Possible	Slips, trips and falls Back injury Soft tissue injury	Slips, trips and falls Back injury	Trainer provides safety briefing and instruction and controlled practice as per Trainer Session Plans.
Halling	Remote	Slips, trips and falls Emotional distress Knee or ankle twist injuries Clash of heads Soft tissue injuries Scratches from fingernails	Knee or ankle twist injuries	Particular care and supervision needed to prevent trips, falls and collisions as these methods can affect balance.
	Likely	Soft tissue injuries Scratches from fingernails	Nil	Staff aware and alert to personal and environmental,
Operational	Possible	Unconsciousness Slips, trips and falls Back injury Soft tissue injury to shoulder (or Hip area for hip turn) Facial injuries from clashing of heads Emotional distress	Slips, trips and falls Back injury	situational risk factors and hazards and warning signs/indicators. Aware of guidance, exit paths, safe havens, safer positioning / proxemics and emergency communications and support. Staff consulted, briefed and practised on likely risk scenarios, preventive strategies and safer working
	Remote	Knee or ankle twist injuries	Knee or ankle twist injuries Emotional distress	practices.



Technique Risk Group: HOOK AND TURN / TEAM TURN

Adult Techniques: Team Turn, Hip Hook and Turn

Child Techniques: Team Shoulder Turn

Intention: To redirect or turn a person away from harm/towards safety, or to redirect a person/s assaulting another ('Rescue').

Key Observations: Specifically, for these techniques, Dr Bleetman recognises 'there is a risk of rotational injuries to the subject's spine and an increased risk of fall and secondary injury."

"When guiding and turning people special care must be given to balance and risk of fall. Avoid bending the back either backwards or forwards." Dr Stas Lifshitz.

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
	Likely	Nil	Nil	
	Possible	Slips, trips and falls Back injury Soft tissue injury	Slips, trips and falls Back injury	Trainer provides safety briefing and instruction and controlled practice as per Trainer Session Plans.
Training	Remote	Slips, trips and falls Emotional distress Knee or ankle twist injuries Clash of heads Soft tissue injuries Scratches from fingernails	Knee or ankle twist injuries	Particular care and supervision needed to prevent trips, falls and collisions as these methods can affect balance.
	Likely	Soft tissue injuries Scratches from fingernails	Nil	6. "
Operational	Possible	Unconsciousness Slips, trips and falls Back injury Soft tissue injury to shoulder (or Hip area for hip turn) Facial injuries from clashing of heads Emotional distress	Slips, trips and falls Back injury	Staff aware and alert to personal and environmental / situational risk factors and hazards and warning signs/indicators. Aware of guidance, exit paths, safe havens, safer positioning / proxemics and emergency communications and support. Staff consulted, briefed and practised on likely risk scenarios, preventive strategies and safer working
	Remote	Knee or ankle twist injuries	Knee or ankle twist injuries Emotional distress	practices.



Technique Risk Group: WRAP HOLDING & ESCORTING

Adult Techniques: Wrap Hold, Wrap Escort, Wrap with 3rd Person Support, Wrap Wall Recovery, Wrap Turn and Reverse, De-escalate Wrap to Cradle, Single Wrap and Hook Containment,

Escort through doorway

Child Techniques: Hook and Interrupter Escort, Reverse Hook and Interrupter Escort

Intention: Mostly two person holds for a turbulent subject.

Key Observations: Specifically, for these techniques Dr Bleetman cautions: "A vulnerable subject may also be at risk of back injury. This is a relatively low risk skill, controls are adequate." Also,

with reference to Single Wrap & Hook Containment: "Upper limb joint injury to subject, strikes to staff members in the event of failure to contain subject."

Dr Chris Van Eee reports: The basic principles are biomechanically sound. The restraint techniques focus on keeping joints in their normal range of motion, so dislocations or

fractures are unlikely to occur.

Additional Observations by Dr Bleetman and Dr Lifshitz: Holding & Escorting:

When guiding and turning people special care must be given to balance and risk of fall. Avoid bending the back either backwards or forwards.

During training do not vigorously resist or try to defeat your colleagues' holds. Work with them to learn these skills safely.

Special care should be given to the shoulder joint. Minimising rotation of the arm and backwards extension can lower the risk of shoulder dislocation. Avoid fully extending

the elbow to minimise risk of fractures and sprains.

Avoid bending people forwards or holding them against (or over) a rigid object, (which can lead to positional asphyxia), especially in the seated (or kneeling) position. Avoid

compression of chest and abdomen and continually monitor the well-being of the person held.

Be alert to risks of bites, spitting and accidental or deliberate clashing of heads.



Technique Risk Group: WRAP HOLDING & ESCORTING (Continued)

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
	Likely	Nil	Nil	
Training	Possible	Slips, trips and falls Soft tissue injuries Superficial scratches Clashing of heads Shoulder injury	Slips, trips and falls Soft tissue injuries Clashing of heads	Trainer provides safety briefing and instruction and controlled practice as per Trainer Session Plans. Particular care and supervision needed to prevent trips, falls and collisions.
	Remote	Rotator cuff injury Knee or ankle twist injuries Joint strain in upper limbs	Knee or ankle twist injuries Lower back injuries through bad positioning Joint strain: Upper limbs Rotator cuff injury	
	Likely	Nil	Nil	
Operational	Possible	Slips, trips and falls. Soft tissue injuries Superficial scratches Clashing of heads Shoulder injury Emotional distress	Slips, trips and falls Soft tissue injuries Emotional distress Clashing of heads Spitting	Staff aware and alert to personal and environmental / situational risk factors and hazards and warning signs/indicators. Aware of guidance, exit paths, safe havens, safer positioning / proxemics and emergency communications and support. Staff consulted, briefed and practised on likely risk
	Remote	Rotator cuff injury Back injuries Knee or ankle twist injuries. Fall injuries compounded by CM's falling on top of subject	Escalation of conflict Head butting from subject Knee or ankle twist injuries Lower back injuries through bad positioning Joint strain in upper limbs Rotator cuff injury	scenarios, preventive strategies and safer working practices.



Technique Risk Group: BED CONTAINMENT & HOLDS

Adult Techniques: Bed Interrupters, Bed Leg Management, Head Management, Bed Transfer, Bed Hooks

Child Techniques: Bed Interrupters

Intention: To contain a supine individual's movement on a bed or trolley, or, apply restrictive holds. Do not hold a person face down or bent over/forward on a bed.

Key Observations: Dr. Bleetman: "Controls are adequate, no specific concerns".

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
	Likely	Nil	Nil	Trainer provides safety briefing and instruction and
Training	Possible	Soft tissue injuries	Soft tissue injuries	controlled practice as per Trainer Session Plans. Demonstrate in training leadership, communication, monitoring / duty of care and personal safety awareness throughout hold and transitions to ensure safety of person held and staff.
	Remote	Back injury, joint strain	Back injury, joint strain Rib injury from leg controls	Consider reducing height of bed
	Likely	Soft tissue injuries	Nil	Staff aware and alert to personal and environmental / situational risk factors and hazards and warning signs/indicators. Aware of guidance, exit paths, safe havens, safer
Operational	Possible	Back injury, joint strain Emotional Distress	Back injury, joint strain Rib injury from leg controls Spitting	positioning / proxemics and emergency communications and support. Staff consulted, briefed and practised on likely risk scenarios, preventive strategies and safer working practices.
	Remote	Knee or Ankle injuries from pressure of staff Obstructed airway e.g. vomit Permanent muscle/nerve damage if prolonged pressure applied to limbs Falls from bed/trolley Positional Asphyxia	Falls, upper limb joint disruption Injury from blows & kicks	Teamwork, communication and monitoring/duty of care required to ensure safety of person held and staff during approach, control, de-escalation and disengagement. Team approach and positioning to avoid blows and kicks. Consider reducing height of bed Alert to prevent person falling from bed.



Technique Risk Group: CROSS BODY ESCORT

Adult Techniques: Cross Body Escort

Child Techniques: Not intended for use on small children

Intention: To hold and escort a non-compliant individual who is not highly aggressive or turbulent.

Key Observations: Specifically, for this technique, Dr Bleetman cautions: "The subject might attempt to head butt. For children or subjects of a short stature, the height differential may result in

the subject's arm being elevated across the front of the chest up towards the shoulder. This has implications for the handling of female subjects across the breast area".

Dr Parkes cautions that misapplication of this technique, which involves compression, may have greater effects on people who are physically small.

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
	Likely	Nil	Nil	
Training	Possible	Slips, trips and falls Soft tissue injury Superficial scratches Clashing of heads Shoulder injury	Slips, trips and falls Clashing of heads	Trainer provides safety briefing and instruction and controlled practice as per Trainer Session Plans.
	Remote	Joint strain in upper limbs Rotator cuff injury Breathing mechanisms compromised	Joint strain in upper limbs Rotator cuff injury	
	Likely	Nil	Nil	
Operational	Possible	Slips, trips and falls Soft tissue injury Superficial scratches Contact with breast area Clashing of heads Shoulder injury Emotional distress	Slips, trips and falls Clashing of heads motional distress	Staff aware and alert to personal and environmental / situational risk factors and hazards and warning signs/indicators. Aware of guidance, exit paths, safe havens, safer positioning / proxemics and emergency communications and support. Staff consulted, briefed and practised on likely risk scenarios, preventive strategies and safer working
	Remote	Joint strain in upper limbs Rotator cuff injury Breathing mechanisms compromised	Joint strain in upper limbs Rotator cuff injury	practices.



Technique Risk Group: CONTAINMENT WITH HOOKS AND CRADLES

Adult Techniques: Containment with Hooks and Cradles

Child Techniques: Containment with Hooks and Cradles, Kneeling Hook and Cradle Containment

Intention: To contain with minimal force certain movements of a child or adult/adolescent displaying risk behaviours.

Key Observations: No specific comments

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
	Likely	Nil	Nil	
Training	Possible	Slips, trips and falls Collisions Soft tissue injuries Superficial scratches Clashing of heads Shoulder injury Emotional distress	Slips, trips and falls Collisions Soft tissue injuries Clashing of heads Emotional distress	Trainer provides safety briefing and instruction and controlled practice as per Trainer Session Plans. Particular care and supervision needed to prevent trips, falls and collisions.
	Remote Kne	Rotator cuff injury Knee or ankle twist injuries Joint strain in upper limbs	Knee or ankle twist injuries Lower back injuries Joint strain: Upper limbs Rotator cuff injury	
	Likely	Nil	Nil	
Operational	Possible	Slips, trips and falls Soft tissue injuries Superficial scratches Clashing of heads Shoulder injury Emotional distress	Slips, trips and falls Soft tissue injuries Emotional distress Clashing of heads Spitting	Staff aware and alert to personal and environmental / situational risk factors and hazards and warning signs/indicators. Aware of guidance, exit paths, safe havens, safer positioning / proxemics and emergency
	Remote	Rotator cuff injury Back injuries Knee or ankle twist injuries Fall injuries compounded by CM's falling on top of subject	Escalation of conflict Head-butting from subject Knee or ankle twist injuries Lower back injuries Joint strain in upper limbs Rotator cuff injury	communications and support. Staff consulted, briefed and practised on likely risk scenarios, preventive strategies and safer working practices.



Technique Risk Group: SUPPORT TO GROUND/SEATED/KNEELING

Adult Techniques: Wrap Support to Ground, Switch Kneeling to Seated, Re-Engagement, De-escalation and Disengagement

Child Techniques: Support to Ground, Switch Kneeling to Seated, Re-engagement

Intention: To support a person taking themselves from standing to kneeling or seated on the ground.

Key Observations: "Avoid bending the person forward which can lead to positional asphyxia, especially in the seated position. When you hold a service user that chooses to lower themselves to

the ground, hold your back straight to avoid back injury and lower on a bended knee. Hitting the ground knees first can result in knee fractures." Dr Stas Lifshitz.

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
	Likely	Nil	Nil	Trainer provides safety briefing and instruction and
Training	Possible	Slips, trips and falls Soft tissue injuries	Slips, trips and falls Soft tissue injuries	controlled practice as per Trainer Session Plans. Emphasis on individual sitting/kneeling upright to aid full and comfortable breathing. Take care to avoid a seated individual falling
	Remote	Rotator cuff injury Impact injuries	Fall related injuries Back injuries Clash of heads	backwards and hitting their head.
	Likely	Soft tissue injuries	Nil	Staff aware and alert to personal and environmental / situational risk factors and hazards and warning signs/indicators. Aware of guidance, exit paths, safe havens, safer
Operational	Possible	Slips, trips and falls Soft tissue injuries	Slips, trips and falls Soft tissue injuries Clash of heads	positioning / proxemics and emergency communications and support. Staff consulted, briefed and practised on likely risk scenarios, preventive strategies and safer working
	Remote	Rotator cuff injury Impact injuries	Fall related injuries Back injuries Lower limb damage if technique is inadequately controlled	practices. Emphasis on individual sitting/kneeling upright to aid full and comfortable breathing. Take care to avoid a seated individual falling backwards and hitting their head.



Technique Risk Group: SEATED HOLDS

Adult Techniques: Seated Wrap, Seated Hook and Cradle

Child Techniques: Seated Wrap, Seated Hook and Cradle

Intention: Two-person hold of a seated person on a stable platform e.g. a sofa. Note: Risks to staff and person held increase if this method is attempted seated on the floor.

Key Observations: Dr Bleetman: "This skill set may increase the risk of positional asphyxia if applied incorrectly i.e. if person is bent forward and not monitored appropriately. Advice on this issue

had been provided and is delivered in training."

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
	Likely	Nil	Nil	
Training	Possible	Minor soft tissue injuries	Minor soft tissue injuries	Trainer provides safety briefing and instruction and controlled practice as per Trainer Session Plans. Use stable seating Emphasis on individual sitting upright.
	Remote	Falls	Falls	
	Likely	Nil	Nil	Staff aware and alert to personal and environmental / situational risk factors and hazards and warning signs/indicators. Aware of guidance, exit paths, safe havens, safer
	Possible	Minor soft tissue injuries	Minor soft tissue injuries Spitting	positioning / proxemics and emergency communications and support. Staff consulted, briefed and practised on likely risk scenarios, preventive strategies and safer working practices.
Operational	Remote	Falls Clash of heads Positional Asphyxia if improper methods applied	Falls, kicks, bites Clash of heads	Use stable seating. Emphasis on individual sitting upright to aid full and comfortable breathing. If the person held struggles and moves to extent that they are no longer seated upright - release so as not to compromise breathing or place stress on neck and/or back or leave staff vulnerable to injury e.g. kicks and bites. Re-engage, if necessary to correct.



Technique Risk Group: NARROW SUPINE

Adult Techniques: Narrow (Corridor) Supine

Child Techniques:Narrow (Corridor) Supine, Transition Narrow Supine to SeatedIntention:To safely contain an individual on the ground in a supine position.

Key Observations: "Avoid pressure or impact against the service users' chest in ground holds. Avoid applying prolonged pressure on the limbs to prevent severe and permanent damage." Dr Stas

Lifshitz.

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
Training	Likely	Nil	Nil	Trainer provides safety briefing and instruction and controlled practice as per Trainer Session Plans. Demonstrate in training leadership, communication, monitoring/duty of care and personal safety awareness throughout hold and transitions to ensure safety of person held and staff. Practice de-escalation and medical emergency Practice non-forceful head management to contain range of movement – only if necessary.
	Possible	Soft tissue injuries Friction burns to wrists Emotional distress	Soft tissue injuries Discomfort kneeling	
	Remote	Rotator cuff injury	Rib injury from leg controls	
Operational	Likely	Soft tissue injuries	Nil	Staff aware and alert to personal and environmental / situational risk factors and hazards and warning signs/indicators.
	Possible	Emotional distress Friction burns to wrists	Soft tissue injuries Rib injury from leg controls Discomfort kneeling Potential spitting Emotional distress	Aware of guidance, exit paths, safe havens, safer positioning / proxemics and emergency communications and support. Staff consulted, briefed and practised on likely risk scenarios, preventive strategies and safer working practices. Leadership, communication, monitoring/duty of care and personal safety awareness throughout hold and transitions to ensure safety of person and staff. De-escalate intervention at earliest opportunity Be prepared for a medical emergency Consider soft slim pad under head for comfort Non-forceful head management to contain range of movement – only if necessary.
	Remote	Rotator cuff injury Elbow injury Head or neck injuries Knee or Ankle injuries from pressure of staff Permanent muscle/nerve damage if prolonged pressure applied to limbs Obstructed airway e.g. vomit Positional Asphyxia	Injury from kicks Bites if positioning and awareness not maintained	



Technique Risk Group: SUPINE HOLDING

Adult Techniques: Supine Leg management, Transition - Seated to Supine, Transition Open to Narrow Supine, Supine Disengagement, Open Supine, Head Safety, Alternative Positions

Child Techniques: Not intended for use on small children

Intention: To safely hold a turbulent individual on the ground in a supine position.

Key Observations: Specifically, for this technique, Dr Bleetman adds "The subject might be at risk of head or neck injury if headbutting. The shoulder joint and rotator cuff might be at risk of injury

in susceptible individuals. The subject is likely to sustain soft tissue injuries to the arms".

"Avoid pressure or impact on against the service users' chest in ground holds. Avoid applying prolonged pressure on the limbs to prevent severe and permanent damage." Dr

Stas Lifshitz.

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
Training	Likely	Nil	Nil	Trainer provides safety briefing and instruction and controlled practice as per Trainer Session Plans. Demonstrate in training leadership, communication, monitoring / duty of care and personal safety awareness throughout hold and transitions to ensure safety of person held and staff. Practice verbal and physical de-escalation and steps
	Possible	Soft tissue injuries Friction burns to wrists Emotional distress	Soft tissue injuries Rib injury from leg controls	
	Remote	Rotator cuff and elbow injuries	Nil	in a medical emergency. Practice non-forceful head management to contain range of movement – only if necessary.
Operational	Likely	Soft tissue injuries	Nil	Staff aware and alert to personal and environmental / situational risk factors and hazards and warning signs/indicators. Aware of guidance, exit paths, safe havens, safer positioning / proxemics and emergency communications and support. Staff consulted, briefed and practised on likely risk scenarios, preventive strategies and safer working practices. Leadership, communication, monitoring/duty of care and personal safety awareness throughout hold and transitions to ensure safety of person and staff. De-escalate intervention at earliest opportunity. Be prepared for a medical emergency. Consider soft slim pad under head for comfort. Non-forceful head management to contain range of movement – only if necessary.
	Possible	Emotional distress Friction burns to wrists	Soft tissue injuries Superficial scratches to wrist area Rib injury from leg controls, Spitting Emotional distress	
	Remote	Rotator cuff and elbow injuries Head or neck injuries Knee or Ankle injuries from pressure by staff Permanent muscle/nerve damage if prolonged pressure applied to limbs Obstructed airway e.g. vomit Positional Asphyxia	Bruising to breast area Bites if positioning and awareness not maintained Injuries from kicks if legs not controlled	



Technique Risk Group: STAFF INITIATED DESCENT

Adult Techniques: Staff Initiated Descent

Child Techniques: Not intended for use on small children

Intention: To sit the subject on the ground for their safety or for staff safety.

Key Observations: Specifically, for this technique, Dr Bleetman adds "Staff might be at risk of back injury. The subject is exposed to impact injuries in the event that descent is inadequately

controlled".

"When lowering a person to the ground, make sure that there is no impact to avoid injuries to the lower back." Dr Stas Lifshitz.

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
Training	Likely	Nil	Nil	Trainer provides safety briefing and instruction and controlled practice as per Trainer Session Plans. Demonstrate in training leadership, communication, monitoring / duty of care and personal safety awareness throughout hold and transitions to ensure safety of person held and staff. Person held should never be bent forward in a seated position as this will restrict their ability to breath. Take care to avoid a seated individual falling backwards and hitting their head.
	Possible	Slips, trips and falls Soft tissue injuries Emotional distress	Slips, trips and falls Soft tissue injuries	
	Remote	Rotator cuff injury Impact injuries including to lower back if technique is inadequately controlled	Fall related injuries Back injuries Clash of heads	
Operational	Likely	Soft tissue injuries	Nil	Staff aware and alert to personal and environmental / situational risk factors and hazards and warning signs / indicators. Aware of guidance, exit paths, safe havens, safer positioning / proxemics and emergency communications and support. Staff consulted, briefed and practised on likely risk scenarios, preventive strategies and safer working practices. Leadership, communication, monitoring/duty of care and personal safety awareness throughout hold and transitions to ensure safety of person and staff. Person held should never be bent forward in a seated position as this will restrict their ability to breath. Take care to avoid a seated individual falling backwards and hitting their head.
	Possible	Slips, trips and falls Soft tissue injuries Emotional distress	Slips, trips and falls Soft tissue injuries Clash of heads Emotional distress	
	Remote	Rotator cuff injury Impact injuries including to lower back if technique is inadequately controlled	Fall related injuries Back injuries Lower limb damage if technique is inadequately controlled	



Technique Risk Group: PRONE TO NARROW SUPINE

Adult Techniques: Prone to Narrow Supine

Child Techniques: Not intended for use on small children

Intention: To quickly and safely transition a prone individual to less restrictive and safer positions.

Key Observations: "Holding a person prone on the ground may increase the risk of suffocation and should be done only as a last resort and for as short a time as possible. Keep the head facing

sideways at all times to avoid suffocation and facial injury." Dr Stas Lifshitz.

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
Training	Likely	Nil	Nil	Trainer provides safety briefing and instruction and controlled practice as per Trainer Session Plans. Demonstrate in training; leadership, communication, monitoring/duty of care and personal safety awareness throughout hold and transitions to ensure safety of person held and staff. Practice verbal and physical de-escalation and steps in a medical emergency.
	Possible	Soft tissue injuries Friction burns to wrists Emotional distress	Soft tissue injuries Discomfort kneeling	
	Remote	Rotator cuff injury	Bruising to breast area Rib injury from leg control	
Operational	Likely	Nil	Nil	Staff aware and alert to personal and environmental / situational risk factors and hazards and warning signs/indicators. Aware of guidance, exit paths, safe havens, safer positioning / proxemics and emergency communications and support. Staff consulted, briefed and practised on likely risk scenarios, preventive strategies and safer working practices. Teamwork and communication required to ensure safety of person and staff during transitions and disengagement. De-escalate intervention at earliest opportunity. Be prepared for a medical emergency.
	Possible	Soft tissue injuries Emotional distress Friction burns to wrists	Soft tissue injuries Discomfort kneeling Rib injury from leg control Emotional distress	
	Remote	Rotator cuff injury Back injuries Knee or Ankle injuries from pressure by staff Permanent muscle/nerve damage if prolonged pressure applied to limbs Obstructed airway e.g. from vomit Positional Asphyxia	Bruising to breast area Bites if positioning not maintained	



Technique Risk Group: PRONE HOLDING

Adult Techniques: Prone Leg Management, Prone, Prone Disengagement

Child Techniques: Not intended for use on small children

Intention: To more safely hold a turbulent individual on the ground in a prone position before earliest possible de-escalation/transition to a safer position.

Key Observations: Specifically, for this technique, Dr Bleetman adds: "Staff must observe for red flags associated with restraints. General advice in relation to positional asphyxia has been provided

and remains relevant for this skill set."

"Holding a person prone on the ground may increase the risk of suffocation and should be done only as a last resort and for as short a time as possible. Keep the head facing

sideways at all times to avoid suffocation and facial injury." Dr Stas Lifshitz.

Dr Parkes cautions that obesity may increase the effects of prone restraint techniques.

Environment	Likelihood	Risks to the subject of the intervention	Risks to the conflict manager	Controls
Training	Likely	Nil	Nil	Trainer provides safety briefing and instruction and controlled practice as per Trainer Session Plans. Demonstrate in training; leadership, communication, monitoring / duty of care and personal safety awareness throughout hold and transitions to ensure safety of person held and staff. Practice verbal and physical de-escalation and steps in a medical emergency. Do not physically control head or elevate head.
	Possible	Soft tissue injuries Friction burns to wrists/arms Emotional distress	Soft tissue injuries	
	Remote	Rotator cuff injury Elbow injury	Bruising to breast area Bites if positioning and awareness not maintained Rib injury from leg control	
Operational	Likely	Nil	Nil	Staff aware and alert to personal and environmental / situational risk factors and hazards and warning signs/indicators. Aware of guidance, exit paths, safe havens, safer positioning / proxemics and emergency communications and support. Staff consulted, briefed and practised on likely risk scenarios, preventive strategies and safer working practices. Leadership, communication, monitoring/duty of care and personal safety awareness throughout hold and transitions to ensure safety of person held and staff. Do not physically control head or elevate head. De-escalate intervention at earliest opportunity. Be prepared for a medical emergency.
	Possible	Soft tissue injuries Emotional distress Friction burns to wrists/arms	Soft tissue injuries Injuries from kicks if legs not controlled Emotional distress	
	Remote	Rotator cuff injury Back injuries, Elbow injury Knee or Ankle injuries from pressure by staff Permanent muscle/nerve damage if prolonged pressure applied to limbs Obstructed airway e.g. from vomit Positional Asphyxia	Bruising to breast area Bites if positioning not maintained Rib injury from leg control	



GENERAL OBSERVATIONS ON PHYSICAL INTERVENTION BY DR BLEETMAN

Any and all physical interventions may result in injury. Most of these are predictable. Other non-predictable injuries may occur. Injury to the staff member, service user or third party can occur from: slips; trips and falls; failure of the skill; escalation of violence; obstacles and hazards within the operational environment; the nature of the skill, and any specific vulnerabilities or conditions of both staff and service user.

Injury will inevitably occur in some operational situations where there is a need to intervene to prevent imminent violence or to terminate a violent episode. The skills selected for these situations should have the best possible safety profile in comparison to any other skills that might be executed in the same situation for the same purpose.

A number of medical conditions may precipitate unintentional aggression and violence. These include: epilepsy; diabetes; drug effects; head injury; sepsis; alcohol; thyroid disease; dehydration and other metabolic disorders and a number of psychiatric and behavioural conditions. Staff and trainers require training in this area. Where possible, staff need to be made aware of service users' individual triggers and antecedents to violence and individual care plans.

Staff may be vulnerable to injury in both the training and operational environments due to: individual constitution; fitness; musculoskeletal disorders; obesity; cardiovascular and neurological disorders; stature; gender; psychological vulnerability; individual personal history; physical hazards in the operational environment; pregnancy and recent injury or surgery. They may also be injured if the operational situation escalates or if the skills fail.

Service users may be vulnerable to injury due to: stature; gender; physical and mental constitution; age; development (physical and psychological); mental illness; acute physical illness; special needs; recent injury or surgery; musculoskeletal, cardiovascular and neurological disorders; individual previous history; physical disability; exhaustion; effects of medications; and the hazards within the operational environment.



Restraint skills may be relatively safe at the moment of deployment, but if the subject is not adequately monitored, there is a danger of restraint-related injury or death. Service users may require restraint following excited delirium, malignant neuroleptic syndrome, serotonin syndrome or any other form of acute behavioural disturbance. Staff and trainers need very specific training in this respect.

It is not possible to accurately quantify the medical risks for any particular skill as this will depend on a number of factors including: relative size, strength and gender of staff and subject; accuracy of executing the skill; the dynamics and environmental constraints of the situation; physical and mental constitution of staff and subject; escalation/de-escalation of the situation and personal vulnerabilities of both parties.

Reporting systems will continue to evolve and inform the organisation about the safety of each skill in terms of injury rates, success rates and adverse or positive outcomes. The data collected by the reporting system should be shared with trainers and any medical reviewer so that this medical risk review can be amended as required.



ADDITIONAL OBSERVATIONS BY DR BLEETMAN AND DR LIFSHITZ

Excited Delirium

"Some individuals may present in a very agitated state that has been known as 'Excited Delirium'. Today we tend to call it 'Acute Behavioural Disturbance' as this allows us to include a number of causes for this condition. Individuals in this state tend to be male, in their late 20s, often with a history of mental health problems and drug abuse. They demonstrate random and severe violence to anyone and anything in their path. They tend to rip off their clothes, have flushed skin and are often described as having 'superhuman strength', feeling no pain whatsoever.

We know that these individuals actually have a medical emergency, often triggered by a psychological or drug-related crisis. However, they are physiologically in trouble, being dehydrated, exhausted, overheated and short of oxygen. Their behaviour often leads to the Police or other agencies attempting restraint which may further restrict their ability to recover and may lead to sudden cardiac arrest and death. In these cases, the subject is often reported as complaining he cannot breathe and increasing resistance to the restraint just prior to collapsing.

We also know that the best chance of avoiding collapse from this state is to terminate the struggle as quickly as possible, often with the use of powerful tranquilliser drugs given by health care professionals. These individuals need to be taken to hospital by ambulance. Any restraint that restricts the subject's ability to breathe either through pressure across the torso or compromise of the airway may significantly increase their risk of cardiac arrest and death. This is known as positional asphyxia.

Cardiac arrest (or sudden cardiac death) during restraint may occasionally occur without Excited Delirium or Acute Behavioural Disturbance. This may occur in individuals who have significant heart or other disease. There is little that we can do to avoid this rare but tragic event".



ADDITIONAL RISK OBSERVATIONS RELATING TO CHILDREN

Individuals may be at added risk by virtue of a physical and/or mental health condition or learning disability. Certain populations may share increased vulnerability, but every person is different which is why a person-centred approach is important where it is foreseeable that physical interventions may be required. This should include a vulnerability assessment considering physical health risks and risks of psychological and emotional harm, plus support needs. Such assessments of intervention risks should be informed by appropriate clinical and medical professionals.

Dr. Bleetman and Dr. Lifshitz:

"Children have a larger head to body ratio, their bones are less brittle and injury patterns are different from falls and trauma than those we see in adults. Bone growth plates are susceptible to injury and long-term disability if damaged. They are vulnerable to positional asphyxia as are adults.

Therefore, any skills that flex the trunk are to be avoided. It is useful to divide the child population into pre-pubescent and adolescent.

The adolescent population can, for the purposes of a medical risk review, be considered as adults.

Pre-pubescent children have additional vulnerabilities in terms of an increased risk of falls, increased risk of head injury and increased risk of damage to bony growth plates.

We need to be very mindful of the emotional needs and coping strategies of children and adolescents and support them during and after any intervention.

Where possible, we should be aware of the specific behavioural strategies for each child in our care.

Staff need to be aware of the risks of (and avoid where at all possible) physical contact with the breast area in females and the genital area in both sexes".

Dr. Bleetman stated: "In very general terms, for this skill set, the medical risks to children are very similar and hence, there is little change to the content of the tables of medical risks that appear for each skill set".



Dr. John Parkes study included Maybo's most highly restrictive holds and involved participants having a variety of ages and physical builds. He states "We would expect that the results and conclusions can be applied to adults and older children (teenagers). It would not be reasonable to directly apply the results to young children who may demonstrate physiological differences. Techniques such as position 4* (misapplication) which involve compression, may have greater effects on people who are physically small, whilst obesity may increase the effects of prone restraint techniques." *Cross Body Escort



ADDITIONAL RISK OBSERVATIONS RELATING TO OLDER ADULTS

Individuals may be at added risk by virtue of a physical and/or mental health condition or learning disability. Certain populations may share increased vulnerability, but every person is different which is why a person-centred approach is important where it is foreseeable that physical interventions may be required. This should include a vulnerability assessment considering physical health risks and risks of psychological and emotional harm, plus support needs. These assessments of intervention risks should be informed by appropriate clinical and medical professionals.

Dr. Bleetman and Dr. Lifshitz:

"The elderly represent another vulnerable group of service users. They will often have a number of significant medical problems and be on medications that render them vulnerable to injury during any conflict or use of force. Their cognitive ability may also be impaired, affecting their understanding of what is happening and their ability to control their responses and their behaviour.

Bones will be brittle, joints stiff and skin fragile. They might have had joint surgery or joint implants. Bone, joints and skin may become damaged even with low levels of physical intervention, causing serious injury.

Older adults are likely to have reduced physiological reserve; that is, they are less able to tolerate the physical demands of conflict or physical intervention. This can lead to cardiac and other emergencies. Their vision and hearing may be impaired, and they may be less steady on their feet.

Their response to injury may be adversely influenced by diabetes, blood vessel disease, blood-thinning medications, long term use of steroids and drugs that affect heart function.

Where possible, behavioural and physical interventions should be carefully selected for each older person, after careful consideration of their individual vulnerabilities.

Special care should be given to the shoulder joint, to ameliorate the risk of dislocation. Minimising the external rotation of the arm and backwards extension can lower the risk of shoulder dislocation, which is highest in the elderly and service users with low muscle mass, hyperflexibility and joint problems".



Dr. Bleetman stated: "The skills in the Maybo programme are also provided to clinical staff managing elderly service users. The programme focusses on containing movements with 'hooks and cradles' and creating boundaries that interrupt movement rather than gripping and forceful holds and this approach should reduce risk of injury to frail individuals. Specific benefits of such methods include lowering arousal and reducing likelihood of skin tears, bone and joint injuries".

Dr. John Parkes study included Maybo's most highly restrictive holds and involved participants having a variety of ages and physical builds. He states, "Techniques such as position 4* (misapplication) which involve compression, may have greater effects on people who are physically small, whilst obesity may increase the effects of prone restraint techniques". *Cross Body Escort



ADDITIONAL OBSERVATIONS ON VULNERABLE GROUPS

Individuals may be at added risk by virtue of a physical and/or mental health condition or learning disability. Certain populations may share increased vulnerability, but every person is different which is why a person-centred approach is important where it is foreseeable that physical interventions may be required. This should include a vulnerability assessment considering physical health risks and risks of psychological and emotional harm, plus support needs. These assessments of intervention risks should be informed by appropriate clinical and medical professionals.

Dr. Bleetman and Dr. Lifshitz:

"Special care should be given to the shoulder joint, to ameliorate the risk of dislocation. Minimising the external rotation of the arm and backwards extension can lower the risk of shoulder dislocation, which is highest in the elderly and service users with low muscle mass, hyperflexibility and joint problems".

(Such joint vulnerability can also be a feature of some types of disability such as Down's Syndrome)

Dr. John Parkes study included Maybo's most highly restrictive holds and involved participants having a variety of ages and physical builds. He states "We would expect that the results and conclusions can be applied to adults and older children (teenagers). It would not be reasonable to directly apply the results to young children who may demonstrate physiological differences. Techniques such as position 4* (misapplication) which involve compression, may have greater effects on people who are physically small, whilst obesity may increase the effects of prone restraint techniques." *Cross Body Escort

