



**PHYSICAL THERAPY HANDOVER
CONSIDERATIONS FOR SUCCESSFUL ATHLETE
TRANSITION BETWEEN DAILY PERFORMANCE
AND NATIONAL TEAM ENVIRONMENTS**

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USEFUL ACRONYMS

DTE	Daily training environment
NTE	National team environment
NSO	National sporting organisation
NIN	National institute network
SSSM	Sports science and sports medicine

INTRODUCTION

Athletes regularly move between their daily training environment (DTE) and national team environments (NTE) for a range of activities including camps, trials or for national and international events. These transitions provide opportunity and risk in terms of communication, continuity of care/support and injury/illness. It is widely acknowledged that smooth transition with clear communication between providers represents best practice and in many situations, this is already occurring in Australian Sport. This document will assist providers, NSOs and the NIN to benchmark and deliver quality practice during athlete handover.

Detail will be provided in this document but if you want to skip ahead to check whether your system is already achieving good practice, a checklist is provided for NSOs and Physical Therapists in Appendices [A](#) and [B](#).

THE HIGH PERFORMANCE SPORT SYSTEM

The **High Performance Sport System** in Australia is comprised of a network of organisations and people focussed on Olympic, Paralympic and Commonwealth Games outcomes. It works separately and differently to commercial sports like AFL and NRL. The AIS leads and connects the system. The National Institute Network (NIN) includes the AIS and State-based Sports Institutes and delivers on State and National sport interests. National Sporting Organisations (NSOs for example Basketball Australia or Cycling Australia) deliver sport-specific outcomes and often directly engage physical therapies providers. A basic understanding of this system helps providers to communicate appropriately.

BACKGROUND; THE EVIDENCE AROUND INJURY RISK MANAGEMENT AND ETHICAL CONSIDERATIONS

There is evidence to demonstrate an increased **risk of injury and illness** in several conditions relevant to athlete handover.

Travel, both international and domestic, pose challenges to athletes' health, wellbeing, recovery and sleep (Sargent et al 2014, Thornton et al 2018). Athletes with pre-existing medical conditions, for example a history of DVT, asthma or mental health problems are at risk of deterioration of their medical condition when travelling. This is predominantly relevant when physical therapists are travelling with teams where there is no doctor and/or psychologist also travelling. Consideration should be given to issues around confidentiality, particularly with mental health problems, and how this is will be managed to ensure safety, best care and respect of privacy.

Changes to **training load** can occur when an individual athlete moves into a team structure and these changes may increase the risk of injury and illness. The AIS has worked with a team of experts to deliver a white paper to guide considerations of **training load in relation to loading and unloading phases of training**. This paper reminds us that

"it is important to understand the context of loading and unloading of training for each sport and athlete. Unfortunately, there are no hard and fast rules, or formula that can accurately prescribe training or predict a performance outcome due to the vast variability in attributes of individual athletes."

Along with others in the performance support team, physical therapists have a good understanding of athlete capacity and load and can help coaches to reduce injury risk.

Continuity of care allows practitioners to develop knowledge over time of individual athletes, their risks, strengths, and sport requirements. There is advantage to NSOs to use physical therapists who are experienced in the sport and have worked with the athletes and coaches. When athletes move from one practitioner to another, shared knowledge minimises time taken to understand individual issues.

Balancing **confidentiality** of medical information with appropriate access by non-medical staff to key medical history at the time of an urgent medical issue should be considered prior to departure if a physical therapist is the sole health provider for a team.

INTERDISCIPLINARY NETWORK SUPPORT FOR PHYSICAL THERAPISTS

It is common in the high performance system for a physical therapist to be the link between a team and the **wider health network**. In some cases, the physical therapist is the only health provider directly supporting a team. It is clearly important that the therapist is well connected with a range of specialist providers who can be consulted as needed. This is especially important in situations where there is increased medical risk, for example an athlete has a history of seizures or a risk associated with location such as a competition in a developing nation where emergency healthcare is difficult to access.

The NSO can help by ensuring the physical therapist has access to the network they require, and this may need to occur in advance of the event. This may include information about local hospitals or medical centres when travelling domestically or overseas, and physical therapists should be connected with the NSO CMO where applicable. The AIS Professional Networks team can be a helpful resource for the NSO, particularly in guiding Australian teams to medical and physical therapy support overseas (see [Appendix C](#) for more information on accessing the International Medical and Physical Therapy Network). Physical therapists must always work within their scope of practice, for example, physiotherapists should not be expected to carry prescription medications. For further information regarding this, please refer to the [“Engaging Physical Therapies providers on a short term basis via service agreement / contractor arrangement”](#).

Interdisciplinary performance support is regarded as best practice in high performance sport. This refers to the athlete and coach being at the centre of a decision-making team. When an athlete transitions to the NTE, a physical therapist may need to bring together key providers from the DTE, NSO and NIN in order to best solve a problem.

Occasionally coaches travel, compete or train with athletes without further support. In this situation, physical therapists can help the coach prepare through teaching self-treatment techniques, providing [telepractice](#) support, preparing coach knowledge of individual injury status in advance and linking the coach with external support as indicated.

BEST PRACTICE FOR ATHLETE HANDOVER IN PHYSICAL THERAPIES

Physical therapies **records** are a legal requirement for all athlete-physical therapist encounters and provide a record of injury history which remains one of the strongest predictors of future injury risk. Most NSOs and NIN partners utilise the AIS Athlete Management System (AMS) which offers secure storage of records and can be accessed worldwide by appropriate professionals. The AIS has developed an online course on how to use the [AMS Injury Record](#), which should be completed by all AHPRA registered clinicians that will be taking clinical notes relating to athlete injuries. Using the “shared notes” section in injury records is one way of facilitating interdisciplinary communication (for example, this is where a physiotherapist could note that back pain is limiting the ability to perform leg press in gym and a S&C coach would be able to see this information).

Athlete therapy records within AMS are provided to appropriate practitioners on request by the NSO. This means that AMS ‘groups’ of athletes attending a camp or event need to be established in advance and access provided to the attending therapist(s). At the end of the camp or event, therapist access to medical records needs to be deactivated. This can be scheduled in advance by the [AMS team](#).

Note that medical and health information must be communicated in a secure way. AMS offers a secure sharing platform through encryption and is an effective solution for information sharing with the appropriate interdisciplinary network.

Records should ideally also provide information regarding the individual’s training load history and physical preparation. Some NSOs are able to provide key physical capabilities or benchmark testing for individual athletes for example 5km run splits, 5m wheelchair sprint time or calf raise endurance.

Effective **availability reports** can facilitate knowledge transfer between practitioners and coaches and there are good examples of team-based availability reports in the Australian Sport system (see [Appendix D](#)). Availability reports can be generated in the AMS from injury records and might include information about each athlete, current injury/illness status, current training capacity, significant injury/illness history and relevant comments. Availability reports are particularly useful at the start of a camp/event.

Individual athlete handover notes can be added in AMS as free text in the 'maintenance and handover' tab (see link to the [AMS Injury Record online course](#)). Handover notes are limited to clear subjective and objective written data. Best practice in physical therapies depends not only on knowledge and data but an understanding of context, in this case the whole person (athlete).

Verbal communication, in addition to formal handover notes and accessible medical records, is widely practiced and recommended within Australian Sport. Verbal communication may be useful to establish:

- The athlete's training load leading in to transition
- The nature of physical therapies support provided in DTE
- Athlete preferences regarding support, communication style
- Interdisciplinary priorities (e.g. is there a particular S&C goal in place or is there a performance psychology plan to be aware of?)
- Are there any social or emotional issues affecting the athlete?

In order to allow effective written and verbal handover, some NSOs provide paid time for practitioners pre and post event and this is considered good practice.

Musculoskeletal screening, now often referred to as a periodic health/musculoskeletal evaluation, has been widely practiced in Australian Sport despite the lack of evidence supporting risk mitigation for many injury types and sporting populations. In the situation where an athlete transitions from one environment to another, screening can help to establish rapport, build familiarity and confirm shared awareness of performance and injury history, major medical risk factors and family history. Sharing screening results with coaches can be an effective way to discuss an athlete's physical attributes, both positive (performance enhancing) and negative (potential injury risks). In the absence of strong evidence, **periodic musculoskeletal evaluations** are recommended by many NSOs instead and may be most relevant in the handover situation. Involving a coach or relevant provider (e.g., S&C coach) may increase effectiveness. Regular tracking of key sport-specific issues may be helpful (e.g., tracking hip adductor strength in soccer players or shoulder rotation ratios in throwers).

When handing over information regarding Paralympic athletes, it is important to acknowledge the unique risks that might be specific to this particular cohort of athletes. A para athlete medical risk screening form is available on AMS and is a useful way to share important information regarding issues specific to Paralympic athletes that readily allows viewing by non-medical practitioners. This form can be made available on request via the [AIS AMS team](#).

ATHLETE AND COACH ENGAGEMENT: WORKING TOWARDS A SMOOTH TRANSITION AND STRONG RELATIONSHIPS

The **coach-practitioner relationship** is important to the team dynamic and performance. During transition, explicit work may be required to establish or re-establish effective role clarity and communication styles. NSOs report that some of the key features of successful coach-physiotherapist relationships include:

- The physiotherapist is familiar with the training/competition, travel plans and the performance goals of the team
- The physiotherapist has a strong understanding of the physical requirements of the sport
- There is an understood method and frequency of communication between physiotherapist and coach
- The coach is provided with good information about injuries, illness and training loads before the athletes enter the NTE and on return to DTE

Coaches and physiotherapists work together in advance of the camp/event to establish the degree to which athletes can modify participation. This will guide decisions around whether injured or ill athletes are able to attend.

In successful teams, the therapist has a professional, fair and respectful relationship with athletes at all times. Physical therapists should also be aware of professional behaviours, in particular noting these important factors:

- Treatment space – ensuring a safe area is chosen for athlete and therapist interactions
- Confidentiality – information regarding an athlete's health is managed ethically
- Social connections – maintaining appropriate relationships with athletes within professional boundaries
- Managing personal time – ensuring team needs are met as a priority while personal time is effectively scheduled and managed

To ensure successful transition of information, it is helpful for NTE physical therapists to receive information regarding these professional behaviours and team culture.

When a massage therapist / myotherapist / soft tissue therapist (MT) works with a team, Australian NSOs note that these professional behaviours lead to best outcomes:

- The MT understands and shares the team performance goals
- The MT works well with coaches and uses a communication style with athletes that is aligned to the coaches' needs
- The MT works well as part of an interdisciplinary team, understands their own professional boundaries and refers appropriately

EFFECTIVE OPERATIONAL SUPPORT FOR PHYSICAL THERAPY PROVIDERS; WHAT CAN THE NSO DO TO PROMOTE BEST PRACTICE?

Operational systems and processes during athlete transition have an impact on the quality of service provided. The NSO and NIN can put these practices into place:

- Allocate and engage the NTE physical therapy provider early to provide time for handover
- Connect therapists in DTE and NTE; communicate which athletes will move to NTE
- Allow paid time pre and post transition for DTE and NTE therapists to communicate
- Provide information about travel, training and competition schedules
- Provide information and expectations about professional behaviour expectations of the physical therapists
- Connect the coach and therapist pre-transition (e.g., discuss preferred style and frequency of communication, the training load expected during the event)
- Facilitate role clarity for the NTE therapist
- Connect the NTE therapist with interdisciplinary providers as required (at a minimum, ensure there is a medical contact available remotely, and medical plans for how to manage an emergency)
- Ensure the NTE therapist has access to and is trained to use a medical records system (e.g., AMS) and that this system allows visibility of significant medical risk factors
- Encourage post-event reporting

POST EVENT REPORTING AND COMMUNICATION

On conclusion of the NTE event, it is important to seek **post-event feedback** from the therapist in order to:

- hand-over relevant information about athlete injury and illness. This can be done in a very specific way when handing over to the DTE physical therapist (via AMS records) and then in a **general and de-identified** way to the NSO to help guide support for future events. Medical or illness handover may also be required to the NSO CMO, where applicable. It is likely to be helpful for the NSO to understand how many injury presentations occurred each day, how many referrals were made to a local medical centre. This may guide engagement of performance support providers for future events.
- provide organisation-wide feedback that will guide future planning. This may include comments on travel, accommodation, meals etc.
- ensure accountability regarding record keeping and knowledge transfer on transition of athlete back to the DTE. Post-event reports can prompt effective practice and ensure that the handover role is completed before the engagement is concluded and the invoice is issued.

Further information regarding post-event feedback is provided in [Appendix E](#).

APPENDICES

Appendix A – Checklist for NSOs

Best-practice checklist for NSOs

- Allocate the NTE physical therapy provider early and provide a services agreement
- Communicate which athletes will move to NTE and when
- Connect therapists in DTE and NTE
- Connect the NTE physical therapist and NTE coach and promote discussion about
 - Event training/competition load requirements
 - Agreed tolerance for injured athletes to participate or attend
- Allow paid time pre- and post-transition for DTE and NTE therapists to communicate
- If the NTE physical therapist is new, consider providing induction information
- Provide information about travel, training and competition schedules
- Facilitate role clarity for the NTE therapist
- Connect the NTE therapist with interdisciplinary providers as required (at a minimum, ensure there is a medical contact available remotely)
- Ensure the NTE therapist has access to and an understanding of a medical records system (e.g. AMS) and that this system allows visibility of significant medical risk factors
- Encourage post-event reporting (e.g. for feedback to NSO), provide a timeframe for this and a template / survey link (refer to [Appendix E for examples of the type of information that might be collected](#))
- Provide feedback to the physical therapist post event for their own learning

Appendix B – Checklist for physical therapists

Best-practice checklist for physical therapists

- Actively seek an agreement and role clarity early (weeks to months before an engagement)
- Seek to understand the sport and the goals of the event (the head coach will normally drive goal setting. It may be a skills camp e.g. breaststroke camp or it may be an event with a specific qualifying goal e.g. top 4 teams qualify for Paralympic Games)
- Understand the de-selection criteria from the coach. For some events, no injury or illness can be catered for. For other events, sessions can be modified if required to suit an individual
- Clarify which athletes are coming to the event and where they are coming from
- Clarify equipment and supplies – who will be providing and what is included?
- Ensure you have AMS access for the athletes who will be at the event
- Actively seek handover information from their treating therapist. Seek to gain written and verbal handover
- Ensure you have appropriate interdisciplinary contacts during the event. For example, you may require a local or remote medical contact person, S&C coach or dietitian
- Understand any medical risk factors for athletes (allergies, significant physical or mental health history)
- Maintain appropriate records
- Seek feedback during an event if appropriate; be open to change
- Provide post-event feedback and athlete handovers (both written and verbal)

Appendix C – International medical and physical therapy network

The International Medical and Physical Therapies Network has been established to centralise the contact information of the many contacts Australian clinicians have developed with their international colleagues over the years they have spent working in and travelling with sport. The network has been compiled through professional recommendations, based upon personal relationships and experiences. This list is available to all Chief Medical Officers, Lead Physiotherapists and Sports Science and Sports Medicine Managers (or equivalent) working in Australia’s High Performance Sport System.


The documents below outline the processes and etiquette surrounding the establishment and use of information available in the International Medical and Physical Therapies network and includes:

- Initial setup / login
- Using the network and making referrals
- Network maintenance and new members

The following documents outline access for:

- Chief Medical Officers and Performance Support Managers (or equivalent)
- Lead Physiotherapists and Performance Health Managers (or equivalent) via the Physiotherapy Leads Teams group

Appendix D – Example of an availability report



Availability Report Last 2 weeks

Date	About	Injury Status	Injury Treatment Summary	Current Most Restrictive Injury	Comments
08-10-2020	Jamie Anderson	Open - No training or competition	Days Since Last Treatment; Last Treatment By: Trent Garrett;	Medial gastroc strain	Intermittent shoulder pain over last 12 months that doesn't limit swimming. Seems to be most aggravated by gym. Reviewed by Dr - appears to be supraspinatus tendinosis and bursitis. For physio review, soft tissue work and rehab strength program. Awaiting update from Physio tomorrow.
08-10-2020	Rio Test A Athlete	Open - Modified training or competition	Days Since Last Treatment; Last Treatment By: Cara Grzeskowiak;	Jaw bruising/ haematoma	Handling current load well. Continues shoulder strength and rehab work. To be reviewed by physio next week.
30-09-2020	Triathlon Male Test	No issues			Now 4 weeks free from injury. Maintenance treatments only this week.
30-09-2020	Rowing Test	No issues			
30-09-2020	Water Polo Male Test	Open - Full training and competition	759 Days Since Last Treatment; Last Treatment By: Ian Morrow;	Sternal fracture	Swimming progression going well. But is also doing pilates course on weekends at same time. Has resulted in more load on neck and is getting neck pain + headaches from that.
30-09-2020	Test Surf Life Saving	No issues			Used some sleep medication from Dr. last week which helped return his sleep patterns to normal. Swim Club are on reduced training for two week block. This timing works well with athlete gradually building his load. Overall feeling much better.
30-09-2020	Badminton Test	No issues			
30-09-2020	Test Paracycling	No issues			
30-09-2020	Swimming Female	Open - Modified training or competition	310 Days Since Last Treatment; Last Treatment By: Todd Ryall;	Illness Related Condition	Used some sleep medication from Dr. last week which helped return his sleep patterns to normal. Swim Club are on reduced training for two week block. This timing works well with athlete gradually building his load. Overall feeling much better.
30-09-2020	Diving Female	Open - Modified training or competition	268 Days Since Last Treatment; Last Treatment By: Aaron Caudwell;	Periorbital bruising/ haematoma	Shoulder pain developed mid April related to doing more bench press. WAIS physio checking on status. Likely to have settled as she hasn't heard from him. If so, case will be closed.
30-09-2020	Gymnastics Athlete	No issues		Illness Related Condition	

Appendix E – Post event reporting recommendations

Post event reporting of medical information between NTE and DTE physiotherapy staff is best achieved using the AMS, which allows secure transmission of this confidential information. A survey of the touring physiotherapist's experiences relating to the tour should also be requested as a means of improving conditions for athletes and staff for future events. Some NSOs use an online survey to collect this post-event feedback, others use a Word-based template that is to be submitted within a pre-negotiated timeframe post event (most sports use a 1 to 2-week timeframe).

Aspects of the tour operations that could be investigated include (but are not limited to):

- Pre-event communication
 - From organising parties regarding tour logistics
 - From DTE physiotherapists regarding athletes coming on tour (including detailing if AMS notes were up to date and useful)
- Travel logistics
 - Provision and stocking of physiotherapy kit / massage equipment
 - Appropriate baggage allowances for equipment
 - Scheduling of flights and transfers (including comments regarding athlete recovery, time prior to competition, etc)
- Workload and expectations of physiotherapy staff while on tour
 - General information regarding number of injuries, injury burden and number of treatments
 - Comments regarding athlete booking systems, time available for treatment
 - Adequate time for medicolegal note taking and therapist self-care
- Staff working relationships
 - Within Performance Support staff
 - As part of the broader NTE staff
 - With external providers (if applicable)
- Appropriateness of training, competition, and recovery facilities
 - Availability of treatment and first aid areas and equipment at these venues
 - Safety consideration if appropriate
- Accommodation
 - Were treatment areas easy to set up and access?
 - Standard and hygiene
 - Nutrition options
 - Distance from training / competition venue
- Challenging aspects of competition not within NSO's control (e.g. competition schedule) whose impact could be mitigated in future with appropriate planning
- If physiotherapist is appropriately experienced and/or qualified, thoughts on athlete preparation and performance in competition

USEFUL RESOURCES

Publications

Charli Sargent, Michele Lastella, Shona L. Halson & Gregory D. Roach. (2014). The impact of training schedules on the sleep and fatigue of elite athletes. *Chronobiology International*, 31:10, 1160-1168, DOI: 10.3109/07420528.2014.957306

Heidi R. Thornton, Joanna Miller, Lee Taylor, Charli Sargent, Michele Lastella & Peter M. Fowler. (2018). Impact of short- compared to long-haul international travel on the sleep and wellbeing of national wheelchair basketball athletes. *Journal of Sports Sciences*, 36:13, 1476-1484, DOI: 10.1080/02640414.2017.1398883

AIS resources

[Considerations of training load in relation to loading and unloading phases of training](#) Position statement, V2 2021

[Optimising telepractice in the National high performance sport system](#) Best practice guidelines, 2020

[AMS Injury Record online course](#) – for physiotherapists and other AHPRA registered practitioners

[AMS Soft Tissue Therapy course](#) – for soft tissue therapists



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