**Cardiorespiratory Training Workshop**

**31st October 2024**

Background

The National Clinical Guidelines for Stroke (2023)1 have made clear recommendations for cardiorespiratory training as part of a secondary prevention agenda post-stroke. There have also been numerous recommendations made in the various national neurorehabilitation guidelines regarding the importance of physical activity post-diagnosis (BSRM & RCP 20032, NICE 20173, NICE 20224). Greater Manchester Neurorehabilitation and Integrated Stroke Delivery Network therefore began a scope of the literature and emerging research in this area to understand how we may deliver appropriate cardiorespiratory training to the stroke and neuro population.

At present there is a consensus internationally on what we should be delivering, but not how this is delivered. GMNISDN therefore liaised with partners GM Active and leading researchers and clinicians in this area to consolidate the knowledge we have and look at how we move this forward to ensure we are delivering best practice for our patient population. A patient & care focus group was also held to gain insight on how this looks for patients from those with lived experience.

Workshop

A cardiorespiratory training workshop was held on 31st October 2024, bringing together GM stroke and neuro clinicians, GM Active colleagues, clinical academics and other interested parties to discuss the landscape in GM and how we may work together to improve this.

Key Questions

1. **What are we currently delivering across GM?**

**NHS**

* Early rehabilitation of stroke and neuro patients including goal setting and onward referrals
* Consideration of mental health and impact on motivation and wellbeing
* Provision of 1:1 and group-based exercises either specific to certain conditions or generalised to falls, core stability, upper limb and lower limb
* Functional rehabilitation as part of neurological rehabilitation programme may be exerting patients to their maximum cardiorespiratory level
* Some limited provision of hydrotherapy (predominantly in the community setting)
* Some consideration of cardiorespiratory fitness but this is varied across different services
* Some joint working and onward referrals to third sector organisations though this is varied across GM
* Joint working across stroke/neuro and cardiac services

**Third Sector**

* Exercise on referral schemes are available across GM
* Each locality has public sector gym/pool available for public use
* Various exercise groups are available to the general public with some more focussed classes for those with specific healthcare needs such as falls, balance and mobility
* There is also a health education provision within these settings though this is varied across the region
* All public facilities have professionals trained in exercise and cardiorespiratory fitness (though this is varied and knowledge of impact of health conditions can be limited)
* Charity sector have some provision of exercise groups and equipment (e.g. BASIC in Salford and various PD Warrior classes across the region)
1. **Where are the gaps in local and regional service provision?**

**NHS**

* Challenges with environment such as limited space and limited equipment to facilitate cardiorespiratory training in inpatient and community settings
* Challenges with staffing either through reduced numbers or reduced capacity to manage cardiorespiratory needs
* No clear guidance for practical delivery or incorporation into existing rehabilitation models
* Varied levels of confidence and competence across all teams in all areas
* Knowledge of local services available across the public, private and charitable sector is varied and somewhat limited
* Handover of patients between services is usually focused on neuro-rehab need and doesn’t necessarily take into consideration the patients cardiorespiratory fitness level/progress/need
* Access to hydrotherapy is very limited within the NHS
* Varied provision of patient and carer education on cardiorespiratory fitness
* Limited service provision for younger people or those still working
* Limited links between NHS clinicians and social prescribing professionals in some areas
* Services are applying principles of aerobic exercise, but at varied intensities and consistencies, likely not at a level to have an impact of cardiorespiratory health
* Limited use of cardiorespiratory outcome measures
* Limited knowledge of target heart rate zones and applying to the stroke/neuro patient

**Third Sector**

* Varied provision of group exercise across GM – postcode lottery
* Classes may be full and difficult to access
* Difficulty with access to modified or accessible equipment
* Transport to venues can be problematic for patients
* Funding of gym membership / class attendance can be prohibitive
* Class provision is sometimes limited to 12 week blocks with limited follow-on provision
* Knowledge of specific health conditions may be limited in some areas
* Relationship and joint working with NHS partners could be improved
1. **What scope is there for change / enhanced delivery?**

**NHS & Third Sector**

* Education on regional and local services
* Networking to improve relationships and joint working between partners in NHS and third sector
* Education to improve confidence and competence when managing stroke/neuro patients with cardiorespiratory training needs (third sector and NHS staff)
* Increased accessibility of exercise offer in the community (e.g. this may involve more classes opened up to stroke/neuro patients in exercise referral schemes, or it may mean additional classes commenced that are needs or diagnosis specific, it may involve classes put on jointly by NHS and third sector partners, or it may involve increased accessibility of 1:1 provision)
* Consideration for use of technology and accessible equipment in NHS and community settings
* Increased hydrotherapy offer using public sector pools
1. **What do we want to take forward?**

**NHS & Third Sector**

* Improving communication between NHS and third sector partners
* Identification and screening of patients appropriate for cardiorespiratory training
* Education for clinicians (cardiorespiratory training, parameters risks etc)
* Education for exercise professionals (stroke and neuro conditions/symptoms and needs)
* Education on locality and regional services and resources across GM
* Focus on prevention and secondary prevention
* Patient education around importance of cardiorespiratory fitness
* Improved handover of cardiorespiratory aspects of rehab between inpatient, community and third sector partners
* Use of technology and innovation within rehabilitation
* Establishment of appropriate pathways including signposting and exit strategies for all services, incorporating self-management

**Next Steps**

* Establish a steering group between key stakeholders including NHS clinicians, GM Active and clinical academics to look at the priorities above and how we move these forwards on a regional and locality level
* GMNSIDN Rehabilitation Subgroup to take forward elements relating to intensity & frequency of rehabilitation within NHS settings