

## JHH Perioperative Service Local Guideline

### Title

#### Duke Activity Status Index score (DASI) in Pre Admission Clinic JHH

### Background

Evaluation of functional capacity or cardiopulmonary fitness is considered integral to preoperative risk assessment for major non-cardiac surgery.<sup>1</sup>

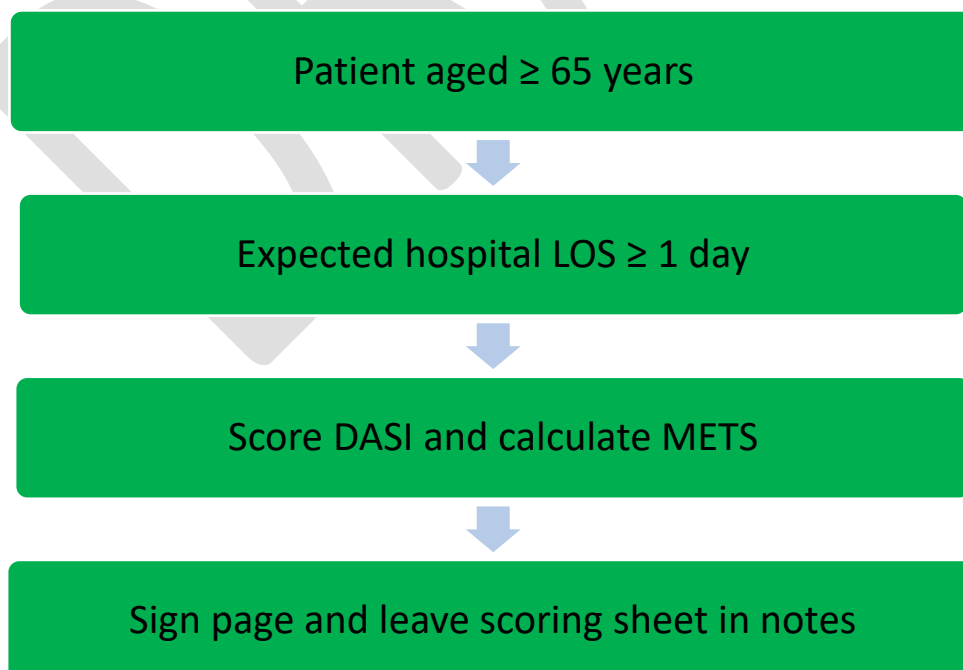
The recent multi-centre Measurement of Exercise Tolerance before Surgery (METS) prospective cohort study found that subjective assessment did not accurately identify patients who performed poorly on formal preoperative exercise testing, and did not correctly identify which patients are at an elevated risk for postoperative morbidity.<sup>2</sup>

The DASI questionnaire was developed in a sample of English-speaking adults undergoing exercise testing in the USA, and has a score ranging from 0 to 58.2, with higher scores indicating greater levels of fitness. The questionnaire is a valid measure of preoperative cardiopulmonary fitness.<sup>1</sup>

In the METS trial<sup>2</sup> the DASI improved the identification of patients at an elevated risk for postoperative myocardial infarction and myocardial injury, even when used in combination with clinical risk indices, such as the Revised Cardiac Risk Index (RCRI).

### Guideline

DASI scoring will be conducted by Nursing staff in the Pre Admission Clinic



## **Consultation**

Perioperative Nursing staff

## **References**

1. Wijeyesundera DN, Beattie WS, Hillis GS et al. Integration of the Duke Activity Status Index into preoperative risk evaluation: a multicentre prospective cohort study *British Journal of Anaesthesia*, 124 (3): 261e270 (2020)
2. Wijeyesundera D.N., Pearse R.M., Shulman M.A. et al. Assessment of functional capacity before major non-cardiac surgery: an international, prospective cohort study. *Lancet*. 2018; 391: 2631-2640

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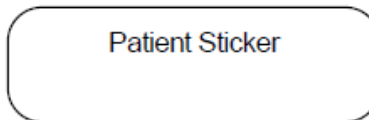
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## **Appendices**

Appendix 1: Duke Activity Status Index score sheet

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## Duke Activity Status Index

Having an anaesthetic can put a lot of pressure on your heart and lungs – a bit like the pressure they are under when you do exercise.

The following questions are to get a gauge of how much exercise your heart and lungs are used to doing **currently**.

	Yes	No
1. Can you take care of self (e.g. eating, dressing, bathing, using the toilet)?	2.75	0
2. Can you walk indoors, such as around your house?	1.75	0
3. Can you walk a block or two on level ground?	2.75	0
4. Can you climb a flight of stairs or walk up a hill?	5.50	0
5. Can you run a short distance?	8.00	0
6. Can you do light work around the house (e.g. dusting, washing dishes)?	2.70	0
7. Can you do moderate work around the house (e.g. vacuuming, sweeping floors, carrying in groceries)?	3.50	0
8. Can you do heavy work around the house (e.g. scrubbing floors, lifting or moving heavy furniture)?	8.00	0
9. Can you do yard work (e.g. raking leaves, weeding, pushing a power mower)?	4.50	0
10. Can you have sexual relations?	5.25	0
11. Can you participate in moderate recreational activities (e.g. golf, bowling, dancing, doubles tennis, throwing a baseball or football)?	6.00	0
12. Can you participate in strenuous sports (e.g. swimming, singles tennis, football, basketball, skiing)?	7.50	0

Duke Activity Status Index (DASI) = sum of "Yes" replies \_\_\_\_\_

$VO_2\text{peak} = (0.43 \times \text{DASI}) + 9.6$

$VO_2\text{peak} = \text{_____ ml/kg/min}$

$VO_2\text{peak} \div 3.5 \text{ ml/kg/min} = \text{_____ METS}$

Completed by..... Signature..... Date.....