



**Design in
Mental Health
Network**
LIGHT | SPACE | HOPE

Design with confidence

Comprehensive test methods for products in
mental health environments

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www.dimhn.org





Issues with current testing?



Environmental Design Guide

Adult Medium Secure Services

Environmental Design Guide Adult Medium Secure Services

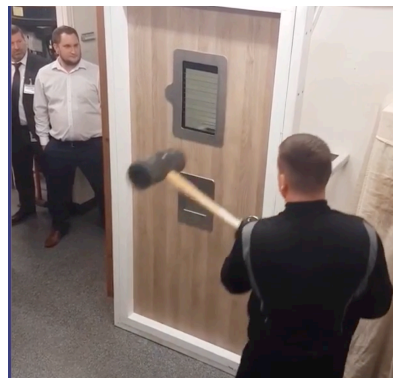
Type 2: Attack by punching or kicking

Implement:	1.2 kg rubber mallet (75 mm)
Test:	Carry out sustained attack with implement comprising of 15 consecutive blows commencing each blow with the implement withdrawn a minimum of 1000 mm away from the component/element of construction

Type 3: The impact of the full body weight of a person

Implement:	Rubber paving maul
Test:	Carry out sustained attack with implement comprising of 15 consecutive blows commencing each blow with the implement withdrawn a minimum of 1000 mm away from the component/element of construction

Issues with current testing?



Issues with current testing?

Technical ✓
Specification



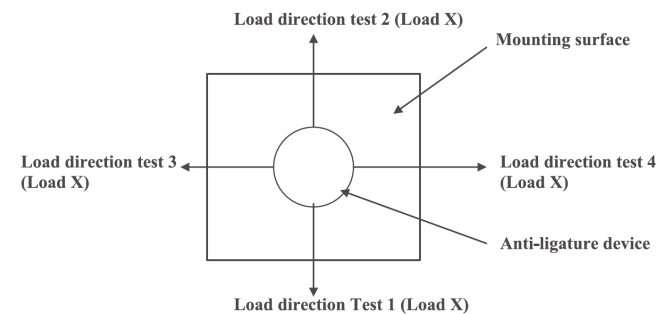
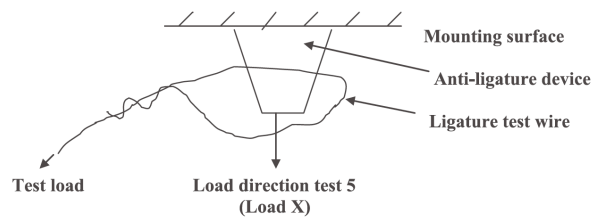
Raising Standards
Safety Assured

Enhanced Requirements & Test Methods for Anti-Ligature Hardware

DHF TS 001:2013



Part 1 - Fixed Hardware Device

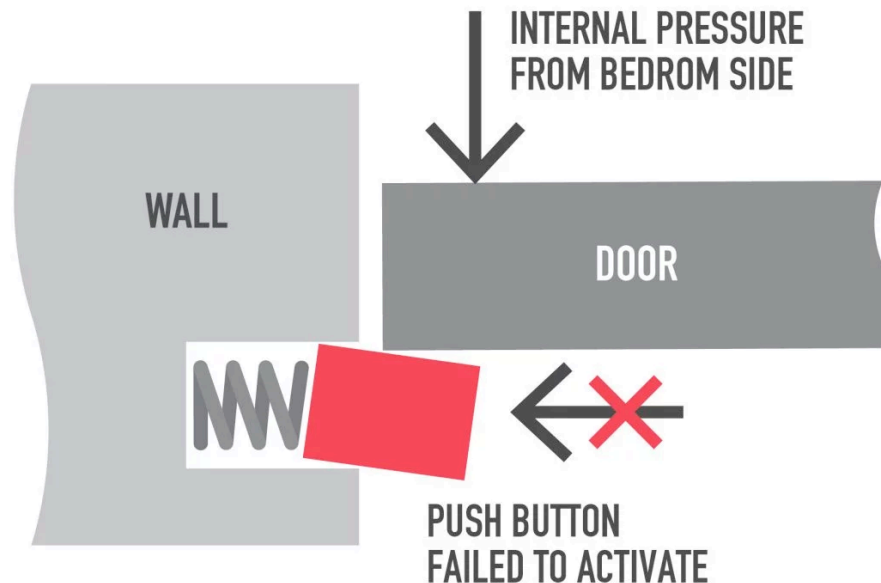


Issues with current testing?

Estates and Facilities Alert

Reference: EFA/2017/002 Issued: 21 August 2017 Review Date: 21 August 2023

Anti-Barricade Devices: risk of ineffectivity in certain circumstances



Learning from other high-risk products



Learning from other high-risk products



Key areas to focus on

All products:

1. Ligature
2. Robustness

Test and Declare

Category specific:

1. Doorsets, hardware and windows
2. Sanitary ware and furniture

Evidence based





Forensic Science International 123 (2001) 172–177

www.elsevier.com/locate/forensi

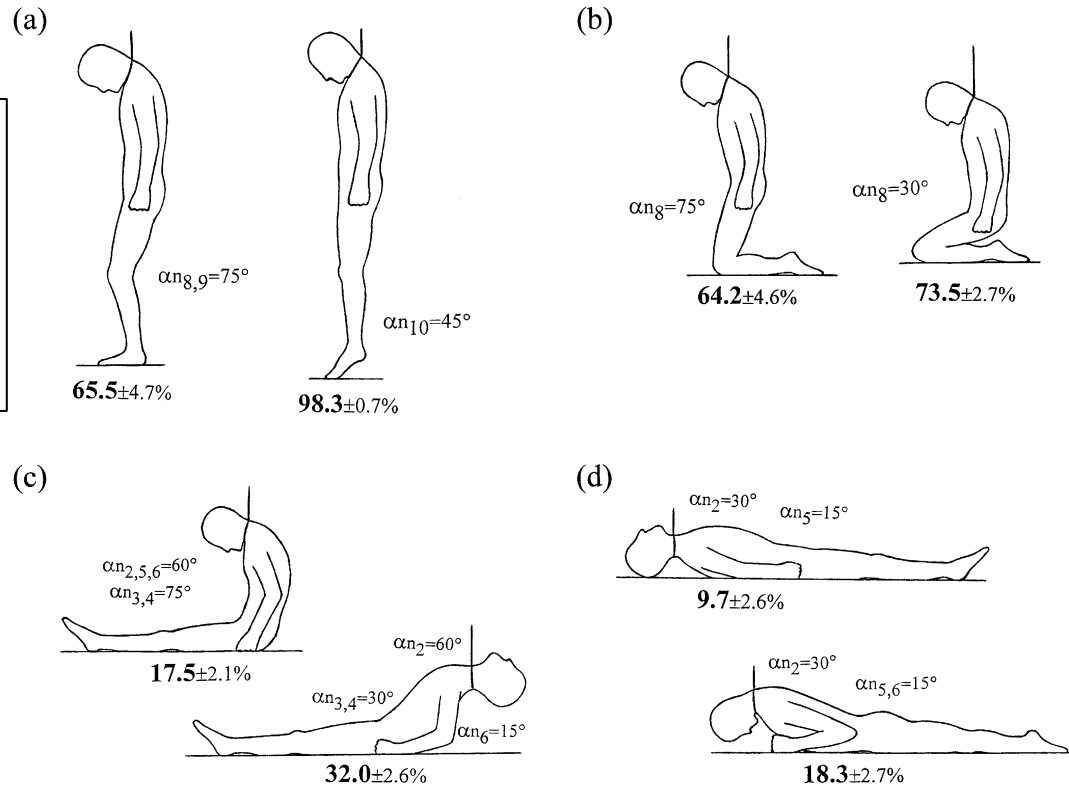
Forensic
Science
International

Calculation of tension exerted on a ligature in incomplete hanging

Vladislav D. Khokhlov*

Bureau for medico-legal expertise, 10 Ekaterininsky Ave., Saint-Petersburg 195067, Russia

Received 23 March 2001; accepted 11 June 2001



Evidence based



Testing challenge?

1. Impulse
2. Some planning and manipulation
3. Great deal of planning and manipulation

Privacy *vs.* Safety

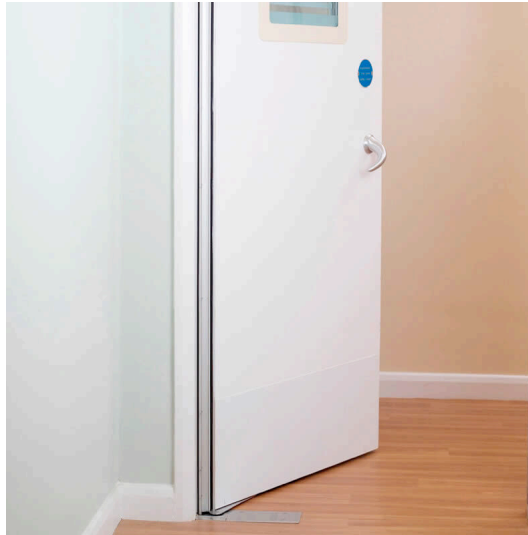
Robustness *vs.* Homeliness

Ligature resistance *vs.* Grip

Ligature performance



Ligature performance



Ligature performance



Ligature performance



Estates and Facilities Alert

Reference:
EFA/2018/005

Issued:
19 Sept 2018

Valid to:
19 Dec 2021

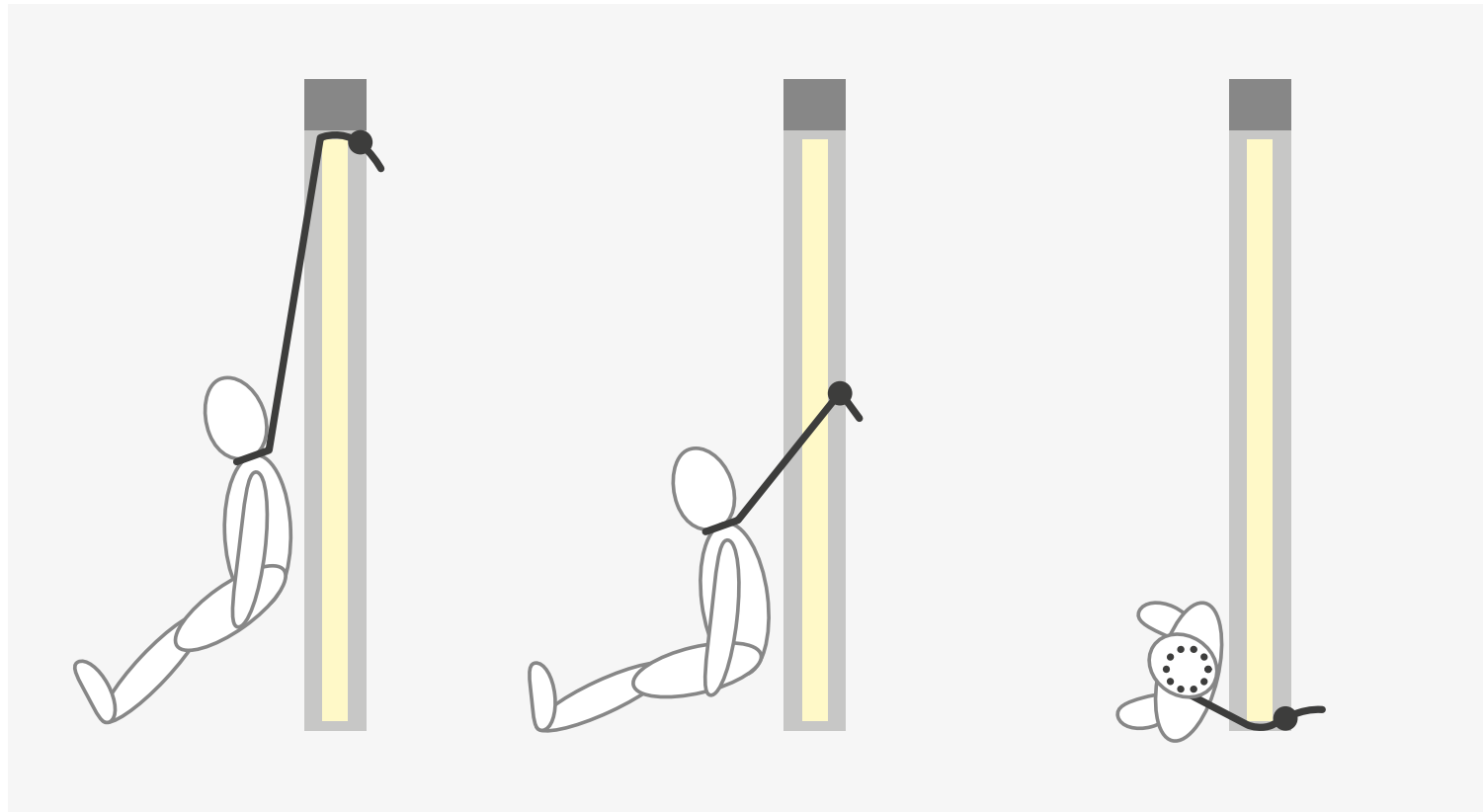
Assessment of ligature points



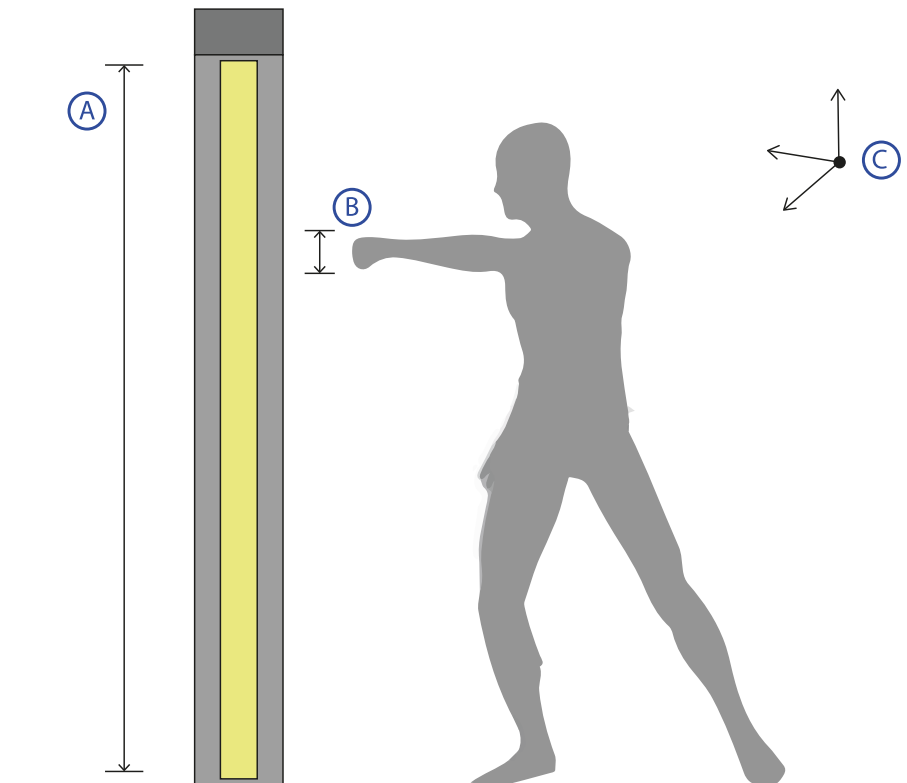
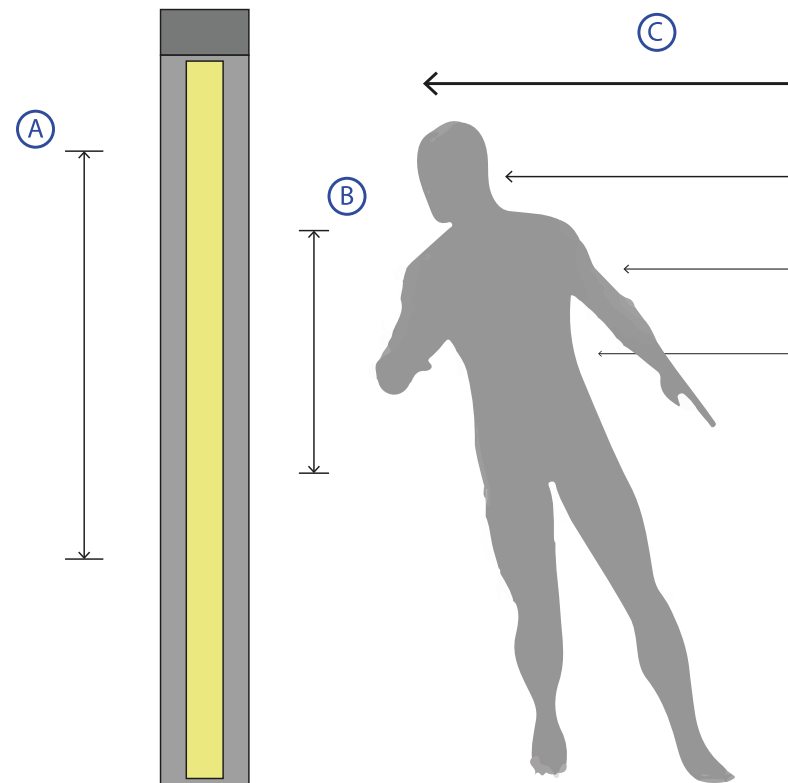
In this instance the organisation used a ligature risk assessment classification that suggested low-level ligatures (less than one metre) were a low priority for removal. Consequently, the organisation concerned had not considered that all ligature points in higher risk, unobserved private single spaces, regardless of height, are a priority.

- Review current risk assessments. Undertake multidisciplinary *in situ* risk assessments to identify ligature points, **no matter what their height**, in areas where patients are admitted, assessed or receive treatment. The risk assessment should take account of multiple environmental, clinical, and operational health and safety factors, including but not limited to:
 - patient population risks
 - type of healthcare facility
 - equipment and therapeutic environment needs of the room/space
 - operation and services undertaken in the room/space
 - staff resource and ability to observe a patient in the room/space.

Ligature performance



Robustness – body force



Robustness – stealth attacks



Anti-barricade doorsets



Consultation and next steps



DRAFT FOR CONSULTATION JUNE 2019

**DESIGN GUIDE FOR PRODUCTS INSTALLED AND
USED WITHIN BUILDINGS AND FACILITIES USED
FOR THE CARE OF MENTAL HEALTH**

**TEST METHODS AND PERFORMANCE
CATEGORIZATION CRITERIA**

bre

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