PRESSURE ULCER PREVENTION:
GUIDE TO PRODUCT PROCUREMENT

This peer-reviewed educational resource is designed to support healthcare professionals in the selection and use of products for pressure ulcer prevention. Procurement secures value for money across the patient pathway so care is delivered in an economic and efficient manner. This guide synthesises key international advice on procurement in a global market that is expected to grow from £8.2 million in 2024 to £1.2 billion by 2032, largely due to aging populations with increasing preventive care needs.

Note: This guide is an educational resource and does not constitute regulatory or legal guidance. For local and national guidance, refer to relevant legislation and regulatory/advisory bodies. Declare any conflicts of interest ahead of tendering.

PRODUCT SELECTION

Selecting a support surface

1. Consider patient population and needs
Consider patient activity, mobility, microclimate management, friction and shear

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2. Determine type of surface to be evaluated
Consider common surface types, characteristics and corresponding standardised tests

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3. Request performance data from manufacturer
Source test results for each product, i.e., immersion and envelopment performance, horizontal stiffness or microclimate management

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4. Compile chart of relevant data for evaluation
Include consideration of support surface type, key characteristics, performance test results and cost

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5. Compare results and determine optimal choice
Select a support surface based on evaluation results and needs of the patient population

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6. Collaborate with procurement team
Share evaluation results and final decision on recommended surface and collaboratively determine which products are feasible to procure

Based on Support Surface Standards Initiative (S3I) guidance on the selection and testing of support surfaces for pressure ulcer prevention

Additional considerations

Clinical evidence
HCPs can refer to these guidelines to judge the evidence base and check compliance of PUP products with manufacturers:
- European Union: EU MDR 2017/745
- UK: MHRA clinical evidence guidelines
- International ISO regulations for medical devices cover Post-Market Surveillance for Manufacturers and Clinical Evaluation (under development)

General safety standards
- HCPs can check whether products meet ISO standards (or other local standards) and are correctly fitted to the bed frame, chair or patient
- Avoid off-label use of devices
- Implement procedure training to ensure competent use of new equipment

Electrical and fire safety standards
- Ensure active surfaces include alarms and are connected to uninterrupted electrical supply
- Advise patients to never smoke, vape or use candles near air-alternating mattresses; airflow pumps intensify ignition and spread fire rapidly
- Avoid paraffin-based emollients; wash bedding frequently to remove residue
- Do not use heated blankets or place hot appliances on mattresses; avoid charging devices on beds; maintain safe outlets

Product marking
HCPs can check local product marking guidelines, including (but not limited to):
- CE/UKCA marking in UK and Europe
- ISO 15223-1:2021 and ISO 13485:2016 quality standards internationally

CLINICAL CONTEXT

Safety and appropriate use checklist

Care setting

- ☐ Contract type (purchase, rental, total bed management) affect maintenance and training
- ☐ Appropriacy for care setting (e.g., acute, community, palliative)
- ☐ Compatibility with setting infrastructure (e.g., power supply, door width, structural safety)

Equipment compatibility

- ☐ Compatibility with other equipment (e.g., bed frames, arm rests, linen, medical devices)
- ☐ Impact on optimal functioning of devices the product is fitted under or around
- ☐ Electricity cost, particularly in patients' homes

Risks

- ☐ Impacts on other risks (e.g., falls)
- ☐ Emergency deflate function for cardiopulmonary resuscitation (CPR)
- ☐ Audio and visual alarm system in event of power failure, pressure fluctuations or faults

Transport checklist

- ☐ Product weight and ease of delivery
- ☐ Ease of setup, e.g., time to full inflation
- ☐ Back-up or mobile power in case of failure
- ☐ Safety and functionality in non-hospital settings

Patient needs assessment checklist

- ☐ Fit with patient size, weight, posture, mobility
- ☐ Individual risk factors (e.g., mobility, activity, skin, comfort)
- ☐ Holistic goals of care, including independence and psychosocial needs
- ☐ Reassessment of product suitability as patient condition changes
- ☐ Patient preferences, e.g., noise and equipment aesthetics

Cost-saving practices

- Establish cost-effectiveness via pre-tender market research and specification sheet for best-value bids
- Balance upfront costs with long-term savings from pressure ulcer prevention
- Increase repositioning intervals
- Considering costs of cleaning and maintenance as well as sustainability costs
- Selecting redistribution foam surfaces that are cost-effective compared to standard foam
- Use Pressure ulcer: productivity calculator

ORGANISATION RESPONSIBILITIES

Monitoring and surveillance checklist

- ☐ Maintain inventory aligned to patient demographics and risk profiles
- ☐ Audit products regularly for safety, functionality and performance
- ☐ Document selection decisions and skin/tissue response to products
- ☐ Train staff to inspect, fit and evaluate support surfaces and other redistributing devices
- ☐ Ensure support surfaces are cleaned and decontaminated according to instructions
- ☐ Inform individuals and informal carers on cleaning for infection prevention, pump function and response to power cuts
- ☐ Check and follow healthcare guidelines and the manufacturer's recommended timeframe for use, maintenance and replacement requirements
- ☐ Regularly inspect products, following manufacturer timelines

Sustainability challenges and solutions

During the procurement process, consider each product's sustainability to reduce your organisation's carbon footprint and detrimental impact on the local environment.

✘ **Products generate lifecycle emissions**
✔ Prioritise products with published life-cycle assessments showing lower global warming potential or resource use across lifecycle

✘ **Manufacturing contributes to global emissions**
✔ Check supplier carbon transparency and adherence to carbon reduction plans or net-zero commitments in tenders (NHS procurement policy)

✘ **Harsh cleaning agents release harmful chemicals**
✔ Clean support surfaces with correctly diluted, biodegradable, low-toxicity agents to minimise environmental impact and workplace asthma

✘ **Incorrect disposal increases waste burden**
✔ With dressings or emollient-soaked bedding, follow HTM 07-01 segregation, recycle safe materials and minimise single-use plastics. Work with environmentally sound disposal procedures and companies

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Produced by Samina Hashimi and Benjamin Snakefield