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Urgent care components and their effectiveness:

A rapid review of evidence and international insights -

Executive summary

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Authorship, acknowledgements and contact information

This report is developed by Public Health Wales in a collaboration between the Evidence Service at the Research, Data and Digital Directorate and the International Horizon Scanning team at the Policy and International Health Directorate.

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Report structure

This report consists of an Executive Summary with key messages (this document) and a separate Technical Document which includes in-depth details of the methodological approach, findings, limitations and discussion.

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Key messages

Overview and scope

- This report examines the effectiveness and impacts of **urgent (primary) care model service components** in alleviating pressure on emergency care and improving patient independence
- The **latest research evidence** has been gathered through a systematic rapid review and **international insights** that highlight good practice across the UK and other countries.
- A **variety of urgent care components** have been explored including: task shifting strategies; access to diagnostic services, such as radiology; decision support tools assisting redirection and digital triage; urgent care/treatment centres; and virtual urgent care.
- **Effectiveness** is measured across **various outcomes** including: cost-effectiveness, patient safety, unplanned health service re-contacts, patient adherence to and compliance with recommended advice, service impact, triage accuracy and appropriateness, waiting times, timely clinical assessment, and patient experience.

Findings and implications for policy and practice

- The report offers **valuable evidence and international learning and explores options** to re-design and optimise delivery of urgent care in Wales.
- Overall, despite limitations in methodology and quantity, the evidence suggests **promising findings** that can reduce emergency department (ED) pressure and improve delivery and patient experience in certain contexts. These include:
 - **Task shifting** (redistribution of clinical responsibilities across settings and professionals) can be safe and potentially effective for enhancing workforce capacity and maintaining care quality when supported by clear protocols, supervision, appropriate team composition and training.
 - **Access to diagnostic services** (such as radiology for general practitioners during out-of-hours) may reduce unnecessary ED referrals and improve patient flow, while considering radiology and workforce capacity, and local infrastructure.
 - **Physician-led redirection from EDs to nearby out-of-hours GPs** can manage non-urgent cases and is generally safe and acceptable to patients, with high compliance and low re-contact rates.
 - **Urgent care/treatment centres** may reduce ED demand, improve flow and increase efficiency of care, particularly for non-emergency cases, shorten waiting times, lower costs, and improve patient satisfaction.
 - **Virtual urgent care** (such as video consultations to deliver remote care for low-acuity conditions) can reduce in-person and ED demand, support self-care, improve patient satisfaction and lower costs, although employing careful triage and follow-up planning would be required to avoid potential longer hospital stays.

- **Digital Triage** (such as telephone systems, decision-support software, self-triage apps) show mixed results, with trade-offs between safety, efficiency, patient experience and cost.
- Effective service design must **balance safety and efficiency**, with attention to training, clear communication, and ensuring equitable access across diverse population groups seen within urgent care settings.
- **Special consideration** should be given to supporting multidisciplinary teams, investing in diagnostic access, and ensuring digital and virtual services are inclusive and responsive to patient needs.
- **Public awareness and education** are essential to improve uptake of alternative urgent care options.
- It is crucial to consider the **feasibility and applicability** of international evidence and practice to the Welsh context, given specific system, population and burden of disease characteristics, as most studies have been conducted outside of the UK.
- Further **quality research and evaluation** is needed to confirm benefits and inform transformation in Wales, considering the limitations of the studies included.

Definitions in Wales used in this report

Across the evidence, service components are often entwined **across emergency care, urgent care and urgent primary care**. Many primary studies aim to reduce the burden experienced within emergency care by incorporating some sort of urgent care service. To overcome these challenges and considering the potential applicability of service components across the system, we have broadened our focus - we refer to urgent primary care when explicitly stated by the primary study's authors, otherwise we refer to urgent care throughout the report to incorporate all types.

Urgent care is defined as health and wellbeing issues, that is both illness and injury, that may result in significant or permanent harm if not dealt with within the next eight hours (2).

Urgent primary care services focus on illness only, requiring attention within eight hours. Urgent primary care services include same day and out-of-hours primary care appointments, phone consultation through the NHS111 Wales, pharmacy advice, and/or referral to an urgent primary care centre.

Emergency care is defined as health and wellbeing issues that may result in significant or permanent harm or death if not dealt with immediately (2).

Executive Summary

Background and rationale

The demand for urgent care is increasing both globally and in Wales, putting significant pressures on emergency services and general practice (1, 2). Reasons include a complex mix of changing demographic, health and social factors, such as ageing populations and a growing burden of chronic diseases. Non-urgent visits are an important driver, ranging from 26% to 60% as a proportion of ED contacts globally (3). Many health systems face a fragmented landscape of urgent and emergency care providers, with services often situated in an uncoordinated and ambiguous space between primary care and emergency hospital settings (2).

In response, many countries, including Wales, are working to reform their urgent (and wider) care systems and develop new, more effective models that could help reduce avoidable emergency visits and increase efficiencies and coordination. Welsh Government are working on the development of a new model of urgent care for the population of Wales that provides seamless advice, assessment and care closer to home. This work is overseen by the Welsh Government Urgent Care Steering Group and is supported by the *Six Goals for Urgent and Emergency Care* Programme and the Strategic Programme for Primary Care (2).

Purpose and target audience

This rapid review provides evidence and international insights to inform the delivery and potential re-design of urgent care in Wales. Specifically, it aims to answer:

- 1) What are the key service components of effective urgent care models?
- 2) Which components are likely to have the most significant impact on mitigating demand/flow into secondary care and maintaining patient independence at home/in the community?

It provides a comprehensive and systematic overview of the evidence base and international good practice to inform policy and decision-makers across Welsh Government, NHS Wales Performance and Improvement and the wider health and social care system in Wales. It can also be used by wider prevention (public health) and care practitioners for assessing and improving patient safety and satisfaction, service delivery and equity.

Methodology

The report combines findings on the effectiveness of urgent care service components, as well as insights on how these have been implemented internationally. A systematic search of the literature has identified 4,179 records from research databases and 3,752 from other sources, such as grey literature. No strong secondary evidence, such as systematic reviews, describing effective urgent care models or their impact on reducing pressures on secondary care have been identified. Twenty two primary studies across 27 publications have been synthesised. Urgent care models have been

classified following the Warkentin et al. (2020) (3) taxonomy, grouping models by setting, hours of operation, staffing, and resources, as explicit naming of 'urgent primary care' models is rare.

Key findings

Urgent care models, service components, outcomes measures of effectiveness, and the countries where the studies were conducted in are summarised in Table 1.

Table 1. Summary of urgent care models and service components identified

Model	Model components	Country	Outcomes
Emergency Department Integrated Services: urgent care provision within emergency department (4-8)	Task shifting Virtual urgent care	Canada UK	Cost-effectiveness Unplanned health services Service impact Waiting times Patient experience
Hospital Parallel Services: urgent care provision operates alongside, but separate from the emergency department (9-15)	Access to radiology Decision support tool: Digital triage system Decision support tool: Redirection Introducing an urgent care centre Task shifting	Belgium France Germany Netherlands Sweden UK	Cost-effectiveness Safety Unplanned health service recontacts Adherence/ patient compliance Service impact Triage accuracy/ appropriateness Waiting times Patient experience
Community Advanced Services: stand-alone provision of urgent care (16-23)	Decision support tool: Digital triage system Introducing an urgent care centre Virtual urgent care	Belgium Denmark Netherlands Portugal USA	Cost-effectiveness Safety Unplanned health service recontacts Service impact Triage accuracy/ appropriateness
Community Restricted Services: urgent care provision on a walk-in basis, offering a narrow range of services (24)	Introducing an urgent care centre	Australia	Service impact Patient experience
Community Home Services: urgent care provision within patients' home (25, 26)	Task shifting	Netherlands UK	Safety Unplanned health service recontacts Service impact Timely clinical assessment Patient experience
National referral Services: national or large regional triage and referral services (27-29)	Decision support tool: Digital triage system	UK	Cost-effectiveness Unplanned health service recontacts Adherence/ patient compliance Service impact Triage accuracy/ appropriateness Waiting times Patient experience

The effectiveness of each service component was measured by assessing various outcomes, which we have grouped as follows:

- **Cost-effectiveness:** includes any measure of cost-effectiveness
- **Patient safety:** includes any outcome incorporating 'safe' as defined by the primary study authors, adverse events and near misses, provision of advice, information and correct/incorrect assessment
- **Unplanned health service recontacts:** including reattendance or recontact rates for the same condition, or follow-up contact within 72 hours or one month of initial visit
- **Patient adherence and compliance:** including compliance with advice or recommendations given by healthcare professionals, such as go to A & E or self-care advice
- **Service impact:** changes in own or other service use including referral rates as well as types of appointments linked to referrals, changes in service/ staff workload, other service impacts such as admission avoidance, reducing ED visits and continuity of care within patients' home or community
- **Triage accuracy and appropriateness:** includes measures such as triage decisions rated as appropriate including appropriateness of referrals
- **Waiting times:** Any measure relating to length of stay or duration of visit or consultation for patient
- **Timely clinical assessment:** duration and number of clinician visits
- **Patient experience:** any measure relating to satisfaction, acceptability, appropriateness, experience and access.

Key findings for the service components are summarised below and country examples are provided in Table 2.

Task shifting

Task shifting is increasingly used in urgent care to manage rising demand and workforce pressures, involving the redistribution of clinical responsibilities across settings and professionals. Evidence from four primary studies indicates shifting tasks from GPs to advanced nurse practitioners and advanced physiotherapy practitioners **can be safe and effective when supported by clear protocols and supervision** (25, 26). The evidence indicates similar or better protocol adherence and patient satisfaction for nurse practitioners compared to GPs, with no significant increase in adverse events or unplanned recontacts (25, 26). Cost-effectiveness varied depending on pricing models, and evidence on service impact was mixed (15). While nurse practitioners referred more patients to EDs and prescribed fewer medications, they also demonstrated higher rates of appropriate prescribing (26). These findings suggest that task shifting can support workforce capacity and maintain care quality, but its impact on costs and service use depends on team composition and training.



Access to diagnostic services, such as radiology

GP access to radiology during out-of-hours care allows GPs to request imaging directly and can reduce unnecessary ED referrals and improve patient flow (13). Evidence from one study conducted in the Netherlands suggests **this approach may be effective**, but findings have limitations that should be considered. Implementing similar access in Wales would require consideration of radiology capacity, workforce availability, and local infrastructure.

Digital triage

Digital triage aims to improve access and reduce emergency visits using tools, such as telephone systems, decision-support software, or self-triage apps, to help assess symptoms and guide patients to appropriate care. Evidence from nine primary studies shows **trade-offs between safety, efficiency, and patient experience** (14, 17, 18, 20-22, 27-29). Online services are cheaper per contact and associated with fewer emergency services recontacts but had lower patient compliance and satisfaction compared to telephone services (29). Triage accuracy varies across tools and roles, with some systems prioritising sensitivity (avoiding missed urgent cases) and others favouring specificity (reducing unnecessary referrals) (17, 18, 20, 22, 28). These findings highlight the need to balance safety and efficiency when designing triage systems for Wales.

Physician-led redirection from emergency departments

Physician-led redirection from ED to nearby out-of-hours general practices aims to manage patient flow by guiding non-urgent cases to more suitable care. Evidence from one primary study conducted in France suggests this approach is **generally safe and acceptable to patients**, with **high compliance and low recontact rates**. Satisfaction depends on the availability of diagnostics and specialist care (11). However, assessment of the feasibility and effectiveness in the Welsh context is required.

Urgent care/treatment centres

Urgent care or urgent treatment centres are designed to manage non-emergency conditions and reduce pressure on EDs by offering timely, primary care-led support. International evidence from five primary studies suggests they can **reduce ED demand, improve flow and increase efficiency of care, particularly for low-acuity cases** (9, 16). Some studies report **cost savings and shorter waiting times**, while others highlighted **improved patient satisfaction** linked to timely assessment and communication (9, 10, 12, 16, 24). Further evaluation is needed to understand how urgent care centres might perform within Wales.

Virtual urgent care

Virtual urgent care uses digital tools, such as video consultations to deliver remote care for low-acuity conditions, aim to **reduce in-person demand and support self-care**. Evidence from two studies conducted in Denmark (23) and Canada (4, 6-8) show service components, including video triage, are promising for reducing unnecessary in-person consultations and promoting self-care, to fewer follow-up contacts and greater use of patients' own GPs (23). **High patient satisfaction** (7) and **lower costs**

(8) are also reported when virtual urgent care avoids ED referrals. However, virtual urgent care users that are referred to the ED have longer hospital stays (6), suggesting **the need for careful triage and follow-up planning**. Findings are context-specific, so consideration is needed to assess feasibility and impact within Wales.

Table 2. International examples of key service components

Model component	Country examples
Task shifting	<p>Netherlands: Task shifting, particularly from GPs to nurse practitioners, has emerged as a strategy to optimise urgent primary care delivery in GP cooperatives delivering out-of-hours home visits for low-complexity care</p> <p>England: Advanced nurse and physiotherapy practitioners have been integrated into various services (urgent treatment centres, out-of-hours home visits) to help manage demand across different locations within England</p>
Access to diagnostic services	<p>Netherlands: A number of out-of-hours GP cooperatives co-located with EDs have introduced direct radiology access to manage minor injuries and reduce ED pressure</p>
Digital triage	<p>Belgium: Utilises both a national phone triage line for non-urgent out-of-hours care and a patient led self-triage app (ODISSEE)</p> <p>Netherlands: Uses a nurse-led phone triage system under GP supervision</p>
Physician-led redirection	<p>France: A physician-led redirection procedure was implemented in an ED where selected primary care patients presenting were redirected towards nearby out-of-hours GP clinics</p>
Urgent care/treatment centres	<p>Germany and Sweden: Some walk-in urgent care centres have been established co-located with or adjacent to hospital EDs</p> <p>United States: There has been a rapid expansion of urgent care centres which often operate as stand-alone services within primary care with extended hours and diagnostics</p>
Virtual urgent care	<p>Denmark: Some regions have incorporated one-way video into out-of-hours primary care for GPs to assess and manage remotely</p> <p>Canada: 14 EDs piloted an ED-led virtual urgent care programme for low-acuity cases, with models varying by site (triage, staffing, technology)</p>

Applicability and limitations

We have considered the **methodological limitations** as well as **generalisability and applicability** of findings to Wales in the synthesis and outlined briefly below. More details can be found in the Technical report.

Evidence of effectiveness of service components is mixed and often limited by methodological weaknesses, such as short duration, single sites, missing data, lack of statistical testing or comparison, low response rates, unclear sampling, subjectivity, etc. At the same time, many studies have used real-world data and involved large or representative samples, helping to improve the relevance of their findings. Some studies have used objective data from medical or service records, applied

methods to reduce systematic error, reported precise estimates, and have used validated tools for measuring outcomes of effectiveness.

It is important to note that only six studies were conducted in England (5, 10, 25, 27-29) offering some contextual relevance; and no relevant studies have been identified in Wales. The remaining 16 studies have been carried out in other countries, including four in the Netherlands (13, 15, 18, 26), three from Belgium (14, 17, 20), two from Denmark (22, 23), and one each in Australia (24), Canada (6), France (11), Germany (9), Portugal (21), Sweden (12) and USA (16). These settings differ in terms of health and care systems and service models, infrastructure, incentives, workforce, population characteristics and burden of disease, and patient behaviours, which could limit the application of findings to the Welsh context.

Implications for policy and practice

The findings from this rapid review and international insights offer valuable learning and opportunities to design and deliver a new model of urgent care for the population of Wales (2). It is crucial to consider the applicability of international evidence to the Welsh context, given the unique healthcare infrastructure, patient behaviours, and service models.

Several **service components** such as task shifting, digital triage, access to diagnostics, redirection, urgent care centres, and virtual urgent care **can improve service delivery and reduce pressure** on ED. Impacts on costs and efficiency, patient safety and satisfaction vary across countries and primary studies.

Further quality research and evaluation is needed to confirm the potential benefits and to inform policy and transformation in Wales. This should include long-term impacts, equity of access and effectiveness across diverse populations. Multi-site evaluations using standardised outcome measures will strengthen the evidence base. Assessment of how digital and virtual service components affect underserved groups and whether alternative staffing models can safely deliver urgent care without compromising safety, equity and quality or patient experience is also required.

Policymakers should give special consideration to supporting **multidisciplinary teams**, investing in **diagnostic access**, and ensuring **digital and virtual services are inclusive and responsive** to patient needs. Service design must **balance safety and efficiency**, with careful attention to training, communication, and equity across different population groups. **Public awareness and education** are essential to improve uptake of alternative urgent care options.



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Links to relevant Public Health Wales work

- [Urgent care components and their effectiveness: A rapid review of evidence and international insights - Technical report](#)

Links to other relevant work

- [Right care, right place, first time Six Goals for Urgent and Emergency Care A policy handbook 2021–2026](#)

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