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Evidence-based pathways to modernise emergency nursing in Italy: autonomy, accountability, and outcomes

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Key words: emergency nursing; nurse practitioners; advanced practice nursing; emergency service; emergency medical services; health policy; patient safety.

Abstract

Italian emergency nursing has not evolved in step with rising Emergency Department (ED) demand and increasing clinical complexity, contributing to overcrowding, delays, burnout, and inappropriate ED use. This paper synthesizes European models and evidence to outline a modernization agenda

centred on professional autonomy, accountability, and outcomes. We propose implementing Advanced Nurse Practitioners to manage low- to moderate-acuity presentations through urgent care pathways, supported by master's education and a clear scope of practice with audit. For prehospital care, we recommend an advanced practice profile for out-of-hospital emergency nurses enabling assessment, protocolised treatments, non-conveyance decisions, and activation of general practitioner and community services when chronic-care pathways are appropriate. System levers include adoption of a validated national triage system with training and recertification, reconfiguration of night-time demand via alternative community access and telehealth, and investment in nurse-led research networks and university pathways. Finally, competencies and responsibilities should be linked to contractual recognition, remuneration, and sustainable rostering. These actions aim to reduce inappropriate ED attendance, shorten call-to-treatment times, improve patient safety, and strengthen workforce retention, aligning Italy with European standards in emergency care.

Introduction

In Italy, Emergency Department (ED) nursing has, for decades, failed to evolve in line with changing health needs and the relentless increase in ED attendances.[1] This stagnation concerns not only professional titles, but also the scope of practice, opportunities for autonomous decision-making, the availability of career pathways, and the presence of an educational and research infrastructure capable of supporting change.[1] In a context in which the profession has developed rapidly in many European countries, Italian EDs have been left without the organisational and professional tools that elsewhere have become standard.[2] The consequences are chronic overcrowding, prolonged waiting times, staff burnout, and the systematic use of the ED to address needs that should be met in other settings.[3,4]

The aim of this article is to make explicit the critical issues that currently prevent emergency nursing from fully contributing to the stability of the system, to outline development trajectories based on consolidated European experiences and accessible evidence, and to propose a policy language that enables decision-makers, universities and healthcare organisations to plan reforms that are realistic yet no longer postponable. This is not a corporatist agenda; rather, it is an account of how the evolution of the profession is a necessary condition for the safety, quality and sustainability of emergency care.

Approach and evidence base

This manuscript is an evidence-informed position/policy paper. The agenda and core recommendations were developed through author consensus based on clinical, organisational and academic experience in emergency care in Italy. To support and contextualise each recommendation, we performed targeted searches in PubMed/MEDLINE and Scopus and consulted relevant institutional and professional guidance/reports. Searches focused on European evidence relating to emergency nursing, advanced practice roles in ED and prehospital settings, triage systems, non-conveyance/alternative pathways, night-time demand and shift work, workforce retention/burnout, governance/accountability, and nurse-led research infrastructure, using combinations of these keywords. Evidence was handled through narrative synthesis, prioritising higher-level evidence and widely adopted frameworks when available, and translating it into implementation-oriented proposals with measurable accountability through audit indicators.

The advanced nurse practitioner in the emergency department

In European contexts where the role has been implemented rigorously, the Advanced Nurse Practitioner (ANP) has become a cornerstone of urgent care for patients with low- to moderate-complexity conditions.[2,5] Low- to moderate-complexity conditions refers to low-acuity ED presentations suitable for standardised, assessment and treatment, in clinically stable patients,

typically managed in Urgent Care Center and/or fast-track streams and often mapping to low-priority triage levels.[5-7] This definition is clinically relevant for Italy, in a multicentre Italian ED analysis (with 1.28 million attendances), non-urgent presentations (triage priority 4–5) increased by 10% over the study period, with the rise observed both in daytime and nighttime shifts, indicating a growing cohort potentially suitable for ANP-led pathways.[6]

The ANP role is grounded in advanced university education, high-intensity workplace-based clinical training, and a clearly defined framework of accountability.[5,8] ANP refers to a postgraduate-prepared advanced practice nurse working within a formally defined scope, supported by protocols, credentialing and audit.[5,8] The ANP does not "take work away" from physicians, but instead returns clinical time to them for the most critical patients, while safely managing presentations that require structured assessment, selected targeted investigations, standardisable treatments, and discharge decisions with follow-up plans.[5,8] The strength of this model lies in the integration of autonomy and traceability: every decision is documented, protocols are transparent, and audit is systematic rather than an administrative barrier to be overcome at each step.[5,9]

In Italy, the absence of the ANP is evident daily in ED corridors: experienced professionals who could assume autonomous management responsibilities continue to operate within narrow operational margins, while physicians and residents are required to handle low-complexity case mixes that elsewhere are managed through advanced nursing pathways.[5-10] The result is a loss of efficiency and motivation on both sides. This is not about "inventing" a new role, but about intelligently importing a well-tested model and adapting it to local regulations, insurance frameworks and professional culture.[5-9] This requires a Master's-level curriculum with strong clinical content, basic diagnostics, applied pharmacology and risk management; the definition of scopes of practice that specify what the ANP can do autonomously and what must be shared; and a system of periodic competency certification and contractual recognition consistent with responsibilities and outcomes.[5-9]

A key organisational lever, in settings where ANPs have demonstrated their value, is the creation of parallel pathways for non-urgent patients. Urgent Treatment Centres (UTCs) or Urgent Care Centres (UCCs), integrated with or adjacent to EDs, manage minor presentations rapidly, reducing pressure on emergency pathways and allowing the ED to focus on high-acuity cases.[5,9] The crucial element is not merely an alternative "front door", but the capacity to close the care cycle in the same setting: assessment, treatment, education and scheduling of any follow-up without bureaucratic "bounce-backs". The ANP is the natural professional to oversee this stream.[8]

Finally, medico-legal aspects must not be avoided but governed. ANP autonomy must rest on institutional protocols, coherent insurance coverage and a clear chain of accountability.[8] International experience shows that responsibility is better distributed when competencies are explicit and measurable, rather than left implicit and, defensively, every decision is escalated to the next hierarchical level.[5-9]

Out-of-hospital emergency nurses and advanced practice

In Italy, the role of nurses working on out-of-hospital ambulances still operates within frameworks that limit its effectiveness: for basic interventions such as analgesia in minor and moderate emergencies, professionals are often required to obtain remote medical authorisation, following telephone procedures that delay the initiation of care and, paradoxically, assign prescribing responsibility to someone who has not seen the patient. In many settings this is compounded by the absence of a clear mandate for non-conveyance to hospital when, after a complete assessment, transport is not clinically necessary.[11] The result is a system that tends towards "defensive transport", fuelling ED attendance and leaving uncovered the decision-making dimension that, in other European countries, is already an integral part of community emergency work.[11]

European experience offers a concrete and reproducible reference. In the Netherlands, the "ambulanceverpleegkundige" is an ambulance nurse with specialist training who works under extensive protocols: they assess on scene, initiate stabilisation, administer analgesia and other time-

critical treatments without having to seek remote clearance in each instance, and can conclude the episode with advice and appropriate referral when hospital admission is not required.[12,13] In Scandinavian systems, the ambulance nurse specialised in prehospital emergency care works in RN-led teams; the hospital anaesthetist is available by teleconsultation as a resource, not as a gatekeeper for every intervention, and the administration of key drugs (including intravenous analgesia) is part of routine, documented and auditable practice.[14,15] In the United Kingdom, ambulance services have developed advanced roles that share the same framework as advanced nursing practice: clinical protocols, "see-and-treat" and "hear-and-treat" decisions, options for non-transport with planned follow-up, and direct access to community pathways.[16,17] In all these cases, telemedicine exists but functions as a safety net and source of specialist advice, not as a substitute for the clinical responsibility of the professional at the patient's side.[18]

Translating these principles into Italian out-of-hospital emergency care means defining a specific advanced practice profile for prehospital emergencies. Nurses must be placed in educational, legal and organisational conditions that enable them to perform structured assessments, decide on and deliver time-critical treatments within agreed protocols, and, above all, make disposition decisions: immediate transport, delayed referral to community services, or closure of the event with instructions and remote monitoring when clinically appropriate. Moreover, nurses should be able to communicate promptly and activate general practitioner and community services rapidly, so they can autonomously determine, when clinically appropriate, whether the patient does not require acute care but should instead be managed through chronic care pathways.[19] This requires an advanced training pathway, access to tools that are now standard elsewhere in Europe, and a legal framework that recognises the out-of-hospital emergency nurse as the accountable professional for specific acts, starting with analgesia and other low- to moderate-risk treatments within clearly described limits.

The expected impact is a reduction in inappropriate ED attendances, shorter call-to-treatment times, more appropriate dispositions, and an increase in professional responsibility that translates into

motivation and workforce stability.[10,11] Above all, it reaffirms a simple principle: in prehospital emergencies, the professional who sees and assesses the patient is the one who makes the decision, within clear rules, with data that measure outcomes and safety, and with a consultation chain ready to intervene when it is truly needed. Nurses' autonomy in the decision-making process may positively affect important determinants of clinical risk, especially in time-dependent conditions, with potential benefits in terms of patient safety.[20]

In-hospital triage

Triage is the engine of the ED, as it determines clinical priorities, directs patient pathways and shapes safety.[21] The absence of a single, validated national system has generated variability that undermines equity: clinically comparable cases may receive different triage codes depending on the hospital, thereby altering time to initial assessment, access to investigations and time to treatment.[22] This is not a technical detail but an issue of distributive justice and clinical outcome.[22]

Addressing this problem requires the selection of a validated model, its rigorous adaptation, and its sustained implementation over time.[23] Model selection and adaptation should follow explicit criteria: demonstrated validity and safety, usability and inter-operator reliability, feasibility and training burden. Importantly, the chosen model must be fit for the Italian setting and workflow, including high volumes of non–time-sensitive presentations; therefore, constructs that are highly context-dependent (e.g., reliance on 'resource utilisation' proxies) should be carefully evaluated for transferability during adaptation. The final choice should prioritise approaches with lower inter-rater variability and clearer operational decision rules, supported by a national implementation package. Sustaining the model does not mean bureaucratic rigidity but intelligent maintenance: mandatory initial training, periodic recertification, daily clinical supervision, regular simulation exercises, and a set of indicators that truly measure what matters.[21,23,24] Under-triage and over-triage should be monitored as patient safety events, not merely as statistical deviations; times to first assessment and to time-dependent treatments should be visible to frontline staff and management; inter-hospital and inter-operator discrepancies should activate structured improvement cycles.[21,23,24]

A minimal audit cycle should be predefined: local triage leads review indicators at regular intervals (e.g., monthly) and report to hospital governance, while regional/national oversight benchmarks sites periodically (e.g., yearly). Pre-specified triggers, such as excess under-triage, sustained delays to first assessment, or triage-linked safety events, should mandate remediation (targeted retraining, supervised shifts, and protocol updates), as recommended within validated triage implementation manuals.

Accordingly, the project must transform the current fragmentation of triage systems into a common language that guides clinical practice, improves outcomes and is firmly grounded in evidence-based practice.

Shift scheduling

The normalisation of night-time access to the ED for non-urgent needs entails health and human costs that can no longer be ignored.[6] The science of sleep and shift work consistently demonstrates the impact on staff health, cognitive performance and risk of error.[25] Continuing to overload the night shift with deferrable demand means wasting the hours with the highest biological cost and reducing efficiency during daytime periods, when the hospital is fully operational and diagnostic–therapeutic pathways are at maximum capacity.

Rebalancing does not mean "closing the doors", but redesigning the service offer.[26] The ED must remain fully operational 24/7 for genuine emergencies and time-critical conditions. In parallel, non-urgent demand should be intercepted through commissioned, measurable alternatives: extended evening opening of community services, telehealth for minor problems, and triage-out with active referral to guaranteed daytime slots.[26,27] Within this framework, the night shift once again becomes the period dedicated to critical conditions and non-deferrable assessments, with teams sized to meet that need rather than the sum of all potential demands.[28]

From an organisational perspective, shift scheduling should become as much an object of clinical governance as triage. The annual distribution of hours, models of assisted rostering, protection of

rest periods, occupational health surveillance and the reduction of night shifts per individual staff member are decisions that have a direct impact on outcomes and workforce retention. Relevant indicators already exist and should be made transparent: proportion of non-urgent attendances between 23:00 and 07:00, times to critical treatments during night hours, sickness absence related to shift work, turnover and intention to leave.[26] To keep the focus on patient safety, systems implementing night-time redirection should also monitor 72-hour unplanned ED reattendance after referral/redirection as a safety outcome. Health policy must assume responsibility for shaping demand, not merely reacting to it.

Research and universities

Without research there is no innovation, and without innovation there is no professional evolution. In Italy, nursing research in the emergency field is fragile in terms of the number of active groups, stability of funding and strength of leadership. In areas that are intrinsically nursing-led, such as triage or out-of-hospital care, much of the scientific output is driven by other disciplines. This is not a competition over roles, but an issue of adequacy: those who perform the work must also be in a position to formulate the questions, measure outcomes, propose solutions and verify their effectiveness.

Building such an ecosystem requires patience and clear strategic choices. Multi-site clinical networks are needed that can collect homogeneous data on processes and outcomes, conduct pragmatic studies and translate what works into routine practice. Dedicated nursing positions with protected time are essential, because research is not an evening hobby but a profession that must be learned and exercised. The system also requires PhD programmes focused on emergency and urgent care, competitive calls that reward nurse-led projects, and an audit culture capable of turning numbers into improvement.

Technology, too, must be tested systematically, starting from the right clinical questions. Enthusiasm for “kiosk” solutions or electronic self-triage systems that promise to automate triage or

replace parts of the clinical assessment must be tempered by this perspective: patients who are well enough to self-triage in the ED are often those whose needs should have been identified and met before they ever reached the emergency department. The concern is not related to digital innovation per se, but to the risk of misframing a demand-management problem as an ED 'absorption' problem through kiosk or self-triage solutions. Digital tools may assist navigation and documentation, but safe triage and disposition require clinician-led assessment, explicit governance and measurable audit. If research is designed without the involvement of professionals who work primarily in emergency care, the underlying problem risks being framed incorrectly: instead of asking how to reduce inappropriate demand and strengthen community pathways, studies focus on how to absorb that demand into the ED more efficiently, sometimes shifting clinical responsibility from nurses to patients themselves.[29,30] In such cases, nothing is gained in terms of safety, appropriateness or professional development. By contrast, tools such as point-of-care testing and integrated decision-support systems can accelerate decision-making and enhance safety, provided they are embedded in a robust educational and evaluative framework and are developed around questions that originate in frontline practice.[31,32]

Finally, universities and health services must rebuild their relationship. EDs can become sites of advanced training and scientific production if we accept that professional knowledge does not originate only in conferences, but in the daily cycles of care. Publication should be the natural outcome of improvement processes, not an exceptional event.

Remuneration and workforce configuration

Reform of emergency care cannot be implemented without an adequately remunerated and motivated workforce. Italian nurses are paid below the average of many European countries and do not benefit from career frameworks that recognise and reward advanced competencies.[33] At the same time, universities have multiplied master's degrees and highly specialised courses that only rarely translate into contractual progression or formally defined additional responsibilities. Labour

market dynamics are clear: professionals move towards systems in which work is recognised, remunerated and protected.[8,34]

A credible reform agenda must explicitly link competencies, responsibilities and remuneration. Career progression should differentiate general clinical practice, advanced practice in EDs and community settings, management and academic roles, with coherent salary levels and allowances.[8,34] The objective is not simply to "pay more", but to retain key expertise and to attract professionals who currently choose other systems. In parallel, workforce planning cannot be limited to head counts: it must define the skill mix required for each mission, including certified triage nurses, ANPs for low- and moderate-acuity flows, staff with competencies in bedside diagnostics, and professionals dedicated to care transitions.

Adjustments in pay must be accompanied by credible working conditions: sustainable rostering, access to continuing professional development, structured certification and recertification pathways, and safe work environments. Without these elements, salary increases risk remaining a temporary compensatory measure; with them, they become part of a professional compact that links quality, safety and the dignity of work.

To facilitate translation into practice, Table 1 summarises each recommendation with prerequisites, expected outcomes and audit indicators.

Limitations and generalisability

This manuscript is an evidence-informed policy/position paper and does not provide an exhaustive systematic review; therefore, some risk of narrative evidence selection is unavoidable. In addition, advanced practice roles and triage governance vary substantially across European countries in terms of education, scope of practice, credentialing, and medico-legal accountability; consequently, models cannot be transferred to Italy without adaptation. Implementation in Italy is also constrained by national legal/regulatory and insurance frameworks, which may limit or delay expansion of autonomous roles and protocolised decision-making. For these reasons, our proposals should be

interpreted as governance and implementation standards supported by measurable indicators, to be adapted through local feasibility assessment and evaluated through audit and safety monitoring.

Conclusions

Italian EDs can no longer rely on an essentially static nursing model while demand grows in volume and complexity. The introduction of ANPs in EDs, the development of advanced practice roles for out-of-hospital emergency nurses, the implementation of genuinely deflationary alternative care pathways, the adoption of a validated national triage system, the reconfiguration of night-time access, the creation of nurse-led research networks, and a coherent remuneration and career framework are not optional add-ons; they represent the minimum conditions required to restore balance to the system. Existing models demonstrate their effectiveness, provided they are adapted rigorously and evaluated with transparency.

This article calls for an end to inertia and for the construction, through clear regulation and targeted investment, of an emergency care system that recognises nurses as advanced practitioners, safeguards staff health, and offers citizens timely, safe and appropriate care. The decision is primarily political and cultural, even before it is organisational: either continue to chase demand with inadequate instruments, or realign Italy with European standards by finally placing nurses in the conditions to fully exercise the competencies for which they are trained.

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Table 1. Implementation-ready summary of key recommendations to modernize emergency nursing in Italy.

Recommendation	Prerequisites	Expected outcomes	Key Performance Indicators
Implement ED Advanced Nurse Practitioners (ANPs) for low–moderate acuity pathways	Master's-level education; defined scope of practice; protocols; supervision & recertification; medico-legal/insurance coverage	Shorter waits for low–moderate acuity; physician time shifted to high-acuity; improved patient flow and satisfaction	Time to clinician assessment (low–moderate acuity); ED Length of Stay for eligible pathways; unplanned reattendance 72h; escalation-to-physician rate; adverse events; protocol adherence
Define an advanced practice profile for out-of-hospital emergency nurses	Master's-level education; defined scope of practice; non-conveyance governance; teleconsultation as support; documentation & audit	Reduced defensive transport; improved call-to-treatment times; appropriate dispositions; workforce motivation	Non-conveyance rate; ED conveyance appropriateness; 72h recontact/ED attendance; protocol deviations; safety events
Adopt a single validated national triage system with sustained implementation	Selection/adaptation of validated model; mandatory training; periodic recertification	Equity and comparability across sites; improved time-to-treatment; reduced variability	Under-triage/over-triage rates; time to first assessment; time to time-critical treatments; inter-operator variability; incident reporting linked to triage
Rebalance night-time demand (maintain 24/7 for true emergencies; intercept deferrable	Extended evening community access; telehealth for minor problems; active referral to daytime slots; demand-	Lower non-urgent night inflow; improved night safety/performance;	Percentage of non-urgent attendances 23:00–07:00; time to critical treatments at night;

demand via alternatives)	shaping policy; rostering governance	better staff health/retention	night incident rate; turnover/intention-to-leave
Build nurse-led research infrastructure and university pathways	Multisite data network; protected research time; PhD pathways; competitive nurse-led calls; pragmatic trials/implementation research	More nursing-led evidence; scalable improvements; guideline contributions	Nurse-led studies; publications; implemented changes with measured outcomes; research training uptake
Link competencies to career framework, remuneration and workforce skill-mix	Defined career ladder; allowances aligned to advanced competencies; safe rostering; certification/recertification	Retention and recruitment; stable skill-mix; safer staffing	Turnover; vacancy rate; training completion; skill-mix coverage; staff wellbeing metrics; retention at 12–24 months

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