

Amplifying Access: Building a Sustainable Rabies Vaccine and HRIG Program in Urgent Care

Joaquin A. Villegas Inurrigarro, MD, MPH, Sheterra Jenkins, MSML, MAES, and Naoshia Carroll, PhD, RN, NEA-BC

INTRODUCTION

Rabies is a nearly universally fatal viral infection once symptoms develop, making timely post-exposure prophylaxis (PEP) essential after high-risk animal exposures. In Texas, where rabies remains enzootic, patients with mammalian bites or bat exposures frequently present for care, yet outpatient access to rabies vaccine and human rabies immune globulin (HRIG) is often limited.

Historically, rabies PEP was not available in our urgent care setting, which created a gap in timely access and commonly resulted in referral to the emergency department. To address this, our organization developed and implemented a structured urgent care pathway for rabies PEP, with the goals of improving access, standardizing care, and reducing unnecessary emergency department utilization.

METHODS

A stepwise implementation process was launched in 2023 to establish rabies PEP services within the urgent care network. The intervention included development of an evidence-based clinical protocol for exposure assessment, wound management, indications for rabies vaccine and HRIG, weight-based HRIG dosing, and public health coordination. Operational planning included procurement of rabies vaccine and HRIG, refrigerated cold-chain storage processes, staff education and competency training, standardized order sets and documentation workflows, billing and reimbursement planning, and risk-management escalation pathways for complex cases.

The protocol emphasized key technical requirements for safe delivery, including thorough wound cleansing, HRIG infiltration into and around wounds when anatomically feasible, separation of HRIG and vaccine administration sites, and scheduling for follow-up doses. Ongoing provider education, quality monitoring, and annual guideline review were incorporated into the rollout.

RESULTS

Before implementation, no rabies vaccines were administered in urgent care in 2022. Following protocol development and operational rollout, rabies PEP delivery increased to 129 vaccine doses in 2023, 177 in 2024, and 194 in 2025 (See Table 1). This accounted for a range of 37-41% of all rabies vaccines given across the healthcare system. Over 165 patients were seen in our clinic for the purpose of rabies vaccination.

Reported outcomes included sustained year-over-year growth in rabies PEP delivery, improved access to timely guideline-based care, reduced reliance on emergency department referral for rabies exposure, and successful incorporation of HRIG administration into the urgent care workflow.

Figure 1. Number of rabies vaccines and patients seen.

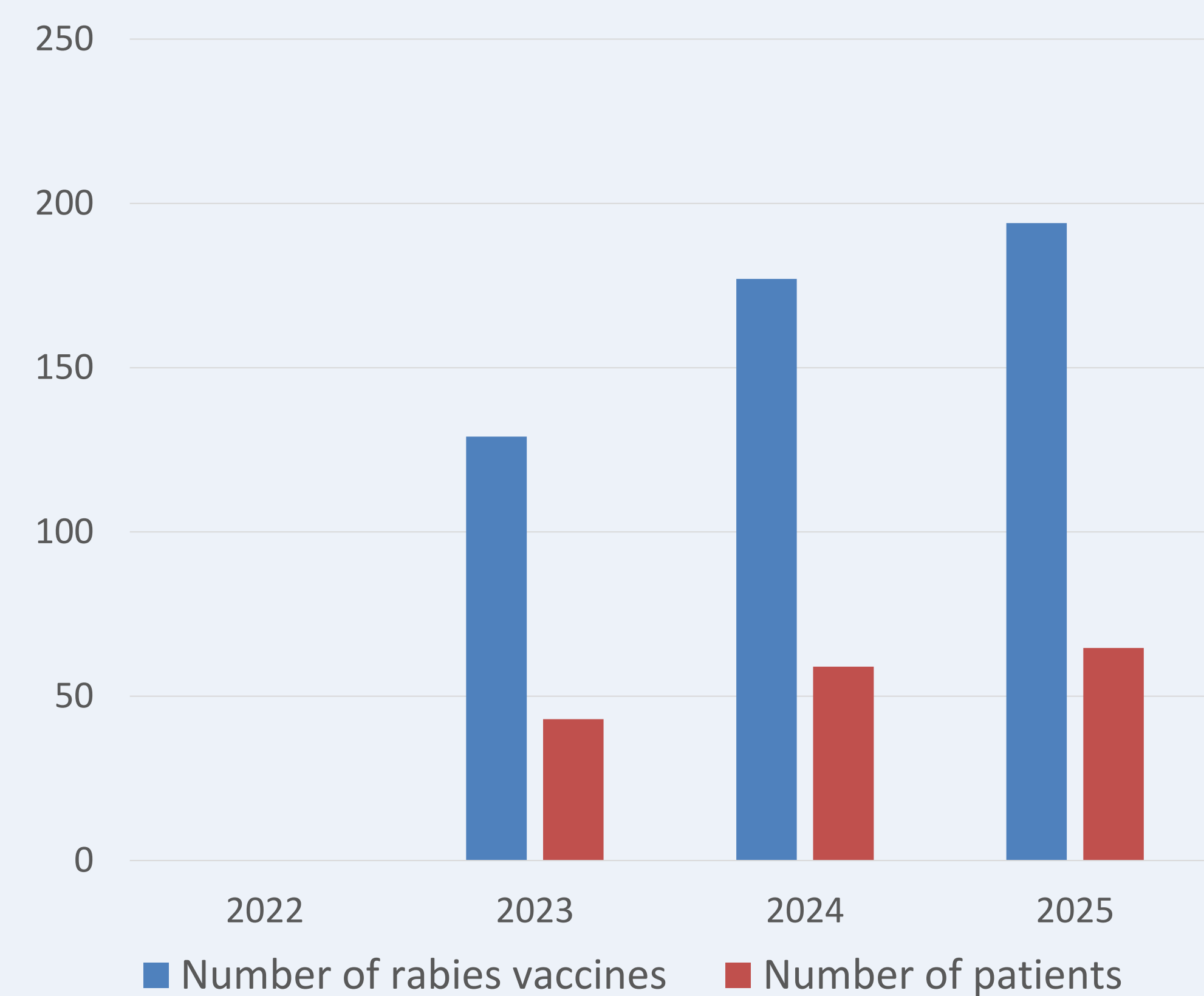


Table 1. Number of rabies vaccines and patients seen.

Year	Number of rabies vaccines	Number of patients	Percent Increase
2022	0	0	N/A
2023	129	43	100%
2024	177	59	27.1%
2025	194	65	8.8%

Rabies Post-Exposure Prophylaxis (PEP) Clinical Pathway

Standardized decision-making algorithm and treatment schedule for patients exposed to potentially rabid animals. Rabies is nearly 100% fatal once symptomatic, but preventable through timely PEP.

Immediate Wound Care & Tetanus Check



Wash all wounds with soap and water for 15 minutes and consider a tetanus booster.

Risk-Based Animal Assessment



Treatment is warranted for high-risk mammals (bats, skunks, raccoons) but not for non-mammals.



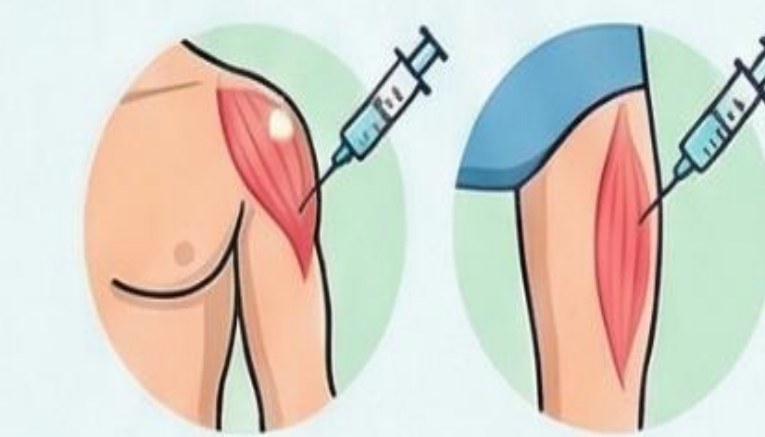
The 10-Day Observation Rule

If a domestic animal remains healthy after a 10-day quarantine, PEP is not required.

PEP Vaccination & HRIG Schedule



DAY 0
Human Rabies Immune Globulin (HRIG)
Administer 20 IU/kg, infiltrated around the wound if possible.



Intramuscular Injection Sites:
Use the deltoid or lateral thigh; avoid the gluteal area.

Vaccination Timing & Schedule (IM) Based on Patient Status

Patient Status	HRIG (Day 0)	Vaccine Schedule (IM)
Not Previously Vaccinated	Yes (20 IU/kg)	Days 0, 3, 7, and 14
Previously Vaccinated	No	Days 0 and 3
Immunocompromised	Yes (20 IU/kg)	Days 0, 3, 7, 14, and 28



Immunocompromised Special Protocol

Requires a 5-dose series (Days 0, 3, 7, 14, 28) and a subsequent antibody titer.

DISCUSSION

This project demonstrates that urgent care can safely deliver rabies PEP when supported by a structured clinical and operational framework. Successful implementation required interdisciplinary collaboration among physicians, pharmacy, nursing, operations, and billing teams. The main barriers identified in the source documents were HRIG cost, limited shelf life, storage requirements, and the technical complexity of appropriate HRIG administration.

These challenges were addressed through protocol development, staff training, procurement planning, cold-chain management, quality assurance measures, and coordination with public health authorities. Importantly, the documents also emphasize that consultation with public health can reduce inappropriate PEP use, reinforcing the value of a standardized pathway. The increasing number of administered vaccine doses suggests both unmet community need and increased provider confidence after systems were established. This model also positions urgent care as an important public health access point while helping preserve emergency department resources.

CONCLUSION

Rabies post-exposure prophylaxis can be implemented successfully in urgent care and does not need to be initiated exclusively in the emergency department. A structured program that includes evidence-based exposure assessment, clear treatment algorithms, reliable biologic procurement, staff training, public health coordination, and standardized follow-up can expand access to this life-saving intervention. Our experience supports urgent care as a safe and scalable setting for rabies PEP delivery and suggests that similar frameworks may be applied to other time-sensitive, high-impact therapies.