



29th Annual Gabor Racz
Advanced Interventional
Pain Conference and Workshop
Budapest, Hungary August 24-26, 2026

Artificial Intelligence in Interventional Pain: From Prediction to Clinical Decision-Making

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29th Annual Gabor Racz Advanced Interventional Pain Conference and Workshop

DISCLOSURE

Conflict of Interest

The presenter has received consulting / speaker fees from:

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No financial relationship with any artificial-intelligence, software or digital-health company. No commercial support was received for this presentation.

Disclosure of AI use in this presentation — generative AI was used for literature retrieval, drafting and slide layout. Every figure, percentage and citation was verified against the primary source by the author. Nothing on these slides was generated without human checking.

Studies presented from our own group are cited explicitly; all other data come from peer-reviewed publications and public regulatory records.







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THE QUESTION

We are very good at doing procedures.

**We are much worse at predicting
who should have them.**

Interventional pain medicine has spent thirty years refining delivery — better needles, better lesions, better images.

The hard part has moved. It is now choosing the patient, predicting the result and making the decision — and those are exactly the jobs machines have become good at.

This talk is about how far that is actually true today — and where the claim breaks down.



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02 • DEFINITIONS

Four different things we all call "AI"

RULE-BASED / e-HEALTH Simple if-then logic that a doctor wrote
Clear and easy to check, but rigid — it only knows what you told it

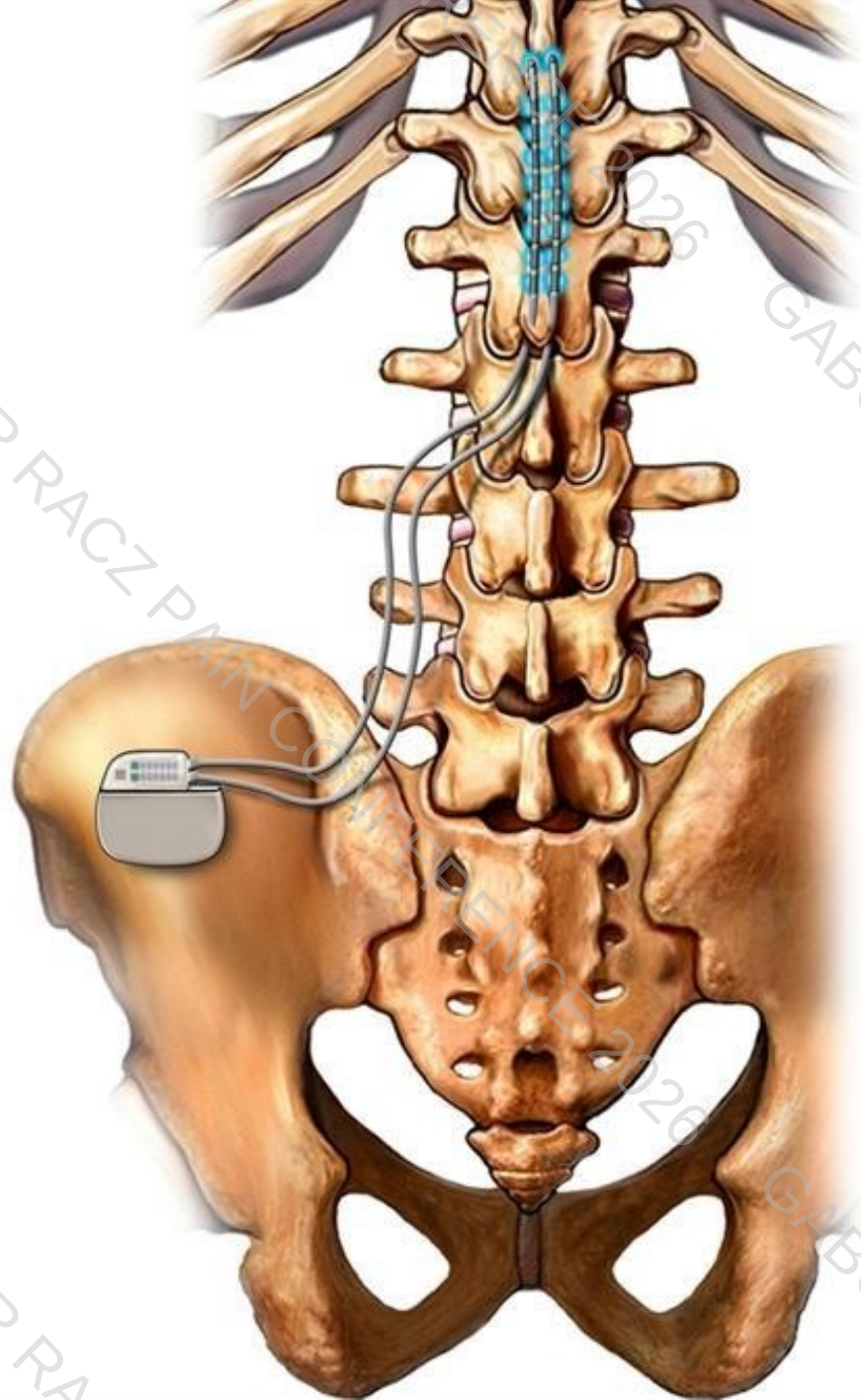
MACHINE LEARNING Learns from your data tables (regression, random forest, boosting)
This is what predicts outcomes — it needs clean data and honest testing

DEEP LEARNING Networks that read raw signals — images, EEG, video
This is where imaging and automatic pain scoring sit

LARGE LANGUAGE MODELS Trained on text; they produce language that sounds right
Very good at communication — but it has never seen your patients

They sit inside each other, and they are not interchangeable

Most disappointment with AI in medicine comes from using one of these where another was needed — above all, asking a language model to do the job of a prediction model.



- SCS is a well-established therapy in chronic pain management.
- **Evidence:** SCS provides significant long-term pain relief, with *number needed to treat (NNT) between 1.2 and 2*, far superior to conventional medical management (NNT 4–10).
- Beyond pain reduction, SCS also reduces **opioid consumption**.
- Importance of accurate **patient selection**.
- Emerging role of **Artificial Intelligence** in outcome prediction.



Why Predictive Models Matter

- Variability in SCS outcomes: responder vs. non-responder rates.
- Economic & clinical implications of failed implants.

A failed implant is not just a missed opportunity ; it also carries costs, risks, and patient disappointment.

- AI as a decision-support tool.





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Not autonomous care — supervised, scalable communication support.

AI meets the patient — 24/7 education

Three peer-reviewed studies, three procedures, one conclusion.



Article

Reliability, Accuracy, and Comprehensibility of AI-Based Responses to Common Patient Questions Regarding Spinal Cord Stimulation

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Abstract: Background: Although spinal cord stimulation (SCS) is an effective treatment for managing chronic pain, many patients have understandable questions and concerns regarding this therapy. Artificial intelligence (AI) has shown promise in delivering patient education in healthcare. This study evaluates the reliability, accuracy, and comprehensibility of ChatGPT's responses to common patient inquiries about SCS. **Methods:** Thirteen commonly asked questions regarding SCS were selected based on the authors' clinical experience managing chronic pain patients and a targeted review of patient education materials and relevant medical literature. The questions were prioritized based on their frequency in patient consultations, relevance to decision-making about SCS, and the complexity of the information typically required to comprehensively address the questions. These questions spanned three domains: pre-procedural, intra-procedural, and post-procedural concerns. Responses were generated using GPT-4.0 with the prompt "If you were a physician, how would you answer a patient asking...". Responses were independently assessed by 10 pain physicians and two non-healthcare professionals using a Likert scale for reliability (1–6 points), accuracy (1–3 points), and comprehensibility (1–3 points). **Results:** ChatGPT's responses demonstrated strong reliability (5.1 ± 0.7) and comprehensibility (2.8 ± 0.2) with 92% and 98% of responses, respectively, meeting or exceeding our predefined thresholds. Accuracy was 2.7 ± 0.3, with 95% of responses rated sufficiently accurate. General queries, such as "What is spinal cord stimulation?" and "What are the risks and benefits?", received higher scores compared to technical questions like "What are the different types of waveforms used in SCS?". **Conclusions:** ChatGPT can be implemented as a supplementary tool for patient education, particularly in addressing general and procedural queries about SCS. However, the AI's performance was less robust in addressing highly technical or nuanced questions.

Keywords: spinal cord stimulation; ChatGPT; artificial intelligence; patient education; chronic pain management; neuromodulation; healthcare communication



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Article

Effectiveness of Generative Artificial Intelligence-Driven Responses to Patient Concerns in Long-Term Opioid Therapy: Cross-Model Assessment

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Abstract: Background: While long-term opioid therapy is a widely utilized strategy for managing chronic pain, many patients have understandable questions and concerns regarding its safety, efficacy, and potential for dependency and addiction. Providing clear, accurate, and reliable information is essential for fostering patient understanding and acceptance. Generative artificial intelligence (AI) applications offer interesting avenues for delivering patient education in healthcare. This study evaluates the reliability, accuracy, and comprehensibility of ChatGPT's responses to common patient inquiries about opioid long-term therapy. **Methods:** An expert panel selected thirteen frequently asked questions regarding long-term opioid therapy based on the authors' clinical experience in managing chronic pain patients and a targeted review of patient education materials. Questions were prioritized based on prevalence in patient consultations, relevance to treatment decision-making, and the complexity of information typically required to address them comprehensively. We assessed comprehensibility by implementing the multimodal generative AI Copilot (Microsoft 365 Copilot Chat). Spanning three domains—pre-therapy, during therapy, and post-therapy—each question was submitted to GPT-4.0 with the prompt "If you were a physician, how would you answer a patient asking...". Ten pain physicians and two non-healthcare professionals independently assessed the responses using a Likert scale to rate reliability (1–6 points), accuracy (1–3 points), and comprehensibility (1–3 points). **Results:** Overall, ChatGPT's responses demonstrated high reliability (5.2 ± 0.6) and good comprehensibility (2.8 ± 0.2), with most answers meeting or exceeding predefined thresholds. Accuracy was moderate (2.7 ± 0.3), with lower performance on more technical topics like opioid tolerance and dependency management. **Conclusions:** While AI applications exhibit significant potential as a supplementary tool for patient education on opioid long-term therapy, limitations in addressing highly technical or context-specific queries underscore the need for ongoing refinement and domain-specific training. Integrating AI systems



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Article

Assessing Artificial Intelligence-Powered Responses to Common Patient Questions on Radiofrequency Ablation and Cryoanalgesia for Chronic Pain

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SPINE study — AI matches clinician judgment

SMART PROCESSING AND INTELLIGENT NAVIGATION FOR EVALUATION

GPT-4 vs expert clinicians

Spinal Cord Stimulation candidate selection

- ▶ Single-center case-based evaluation
- ▶ Comparable accuracy to senior pain physicians
- ▶ Faster, consistent, documentable reasoning
- ▶ Not affected by fatigue, time pressure, or case-order drift in the way humans can be.

Journal of Pain Research

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ORIGINAL RESEARCH

Smart Processing and Intelligent Navigation for Evaluation (SPINE): Comparing Clinicians and AI Language Model (GPT-4) in Spinal Cord Stimulation Candidate Selection

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Background: With the continued advancement of artificial intelligence (AI), large language models (LLMs) such as GPT-4 may assist clinicians in evaluating patient candidacy for spinal cord stimulation (SCS). We compared a general-purpose, non-fine-tuned LLM (GPT-4), an expert multidisciplinary team (MDT), and a clinician-input, rule-based e-Health decision-support tool. The study focused exclusively on decision agreement and did not assess clinical outcomes (eg, pain relief or device retention).

Methods: This single-center, retrospective cohort was conducted at Fondazione Istituto G. Giglio (Cefalù, Italy) and included 93 consecutive adults referred to the MDT for SCS evaluation between January 2022 and March 2024. The MDT issued binary recommendations ("proceed" vs "do not proceed") as the reference standard. The e-Health tool generated "yes", "maybe", or "no" outputs from structured clinician-entered data. GPT-4 was applied zero-shot, using a single standardized prompt on anonymized vignettes within an offline environment. The primary endpoint was agreement (weighted κ) among MDT, e-Health, and GPT-4; sensitivity/specificity analyses explored three interpretations of "maybe".

Results: The MDT recommended SCS for 91.4% of patients, compared with 54.8% for the e-Health tool and 46.2% for GPT-4. Agreement was moderate for MDT vs e-Health ($\kappa = 0.51$) and e-Health vs GPT-4 ($\kappa = 0.46$), and fair for MDT vs GPT-4 ($\kappa = 0.29$). GPT-4 demonstrated a more conservative profile, favoring specificity over sensitivity.

Conclusion: A non-fine-tuned GPT-4 approximated but did not replicate MDT decision-making, functioning as a high-specificity, low-sensitivity filter. A layered workflow combining rule-based tools with expert oversight and targeted LLM adaptation may best optimize SCS candidate selection.

Keywords: artificial intelligence, large-language models, spinal cord stimulation, chronic pain, patient selection, neuromodulation

Background

Artificial intelligence (AI) applications in the clinical setting have made significant progress, from early-stage research prototypes to becoming an everyday clinical asset, accelerating information retrieval, and pattern recognition across almost every medical specialty.¹⁻⁵ Large-language models (LLMs) such as GPT-4 can now interpret narrative clinical

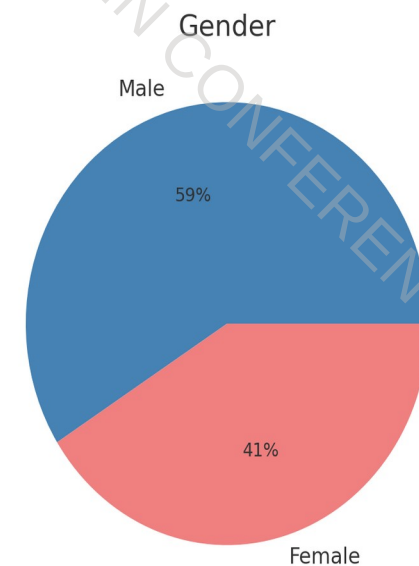
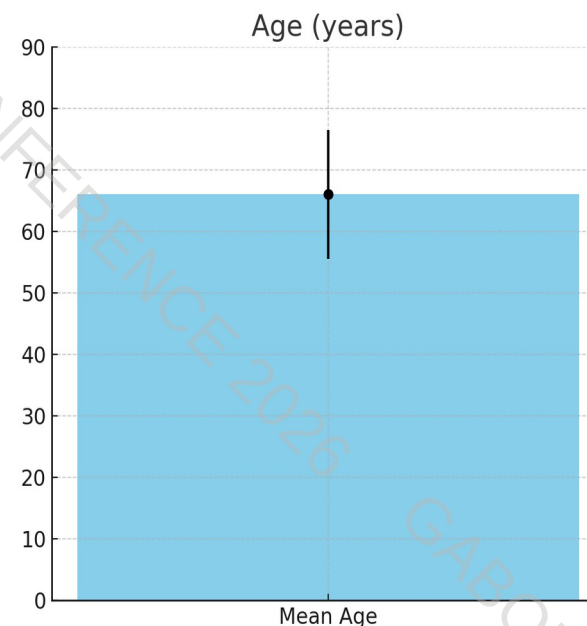
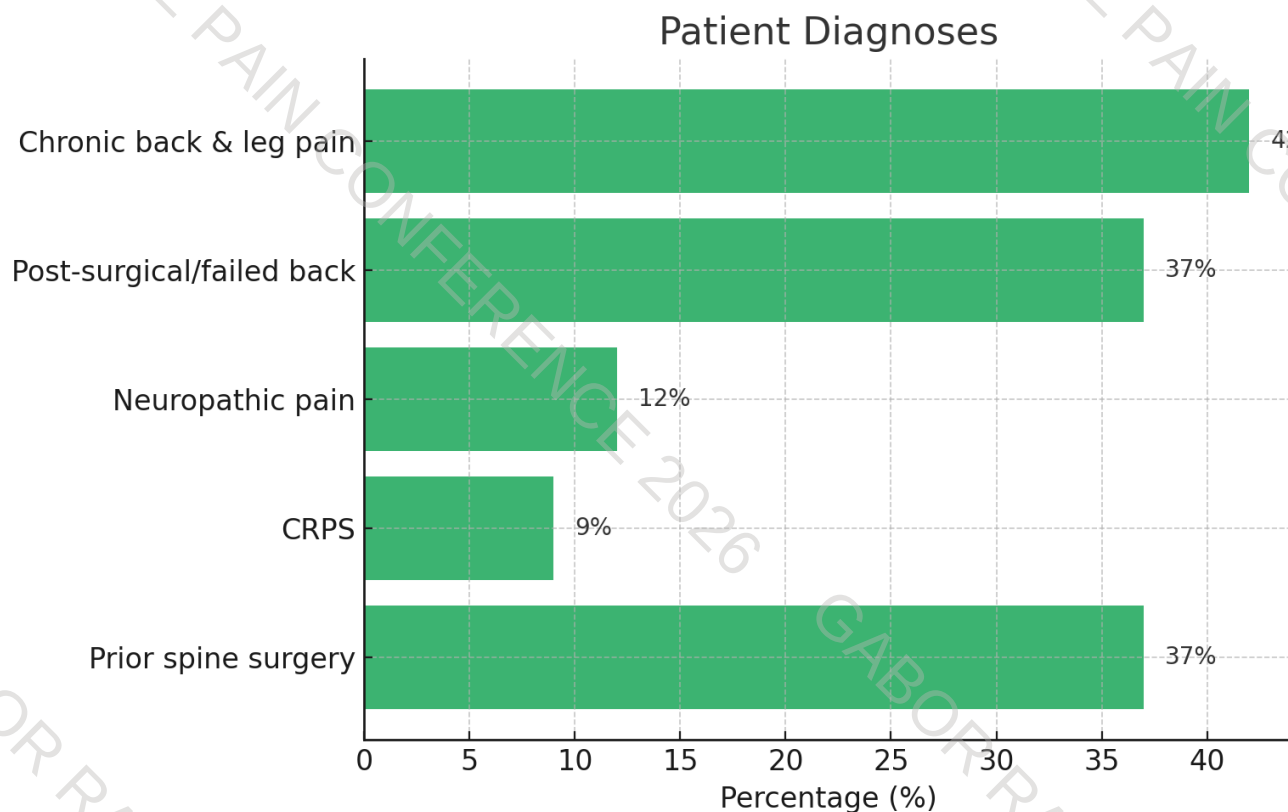
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Overview

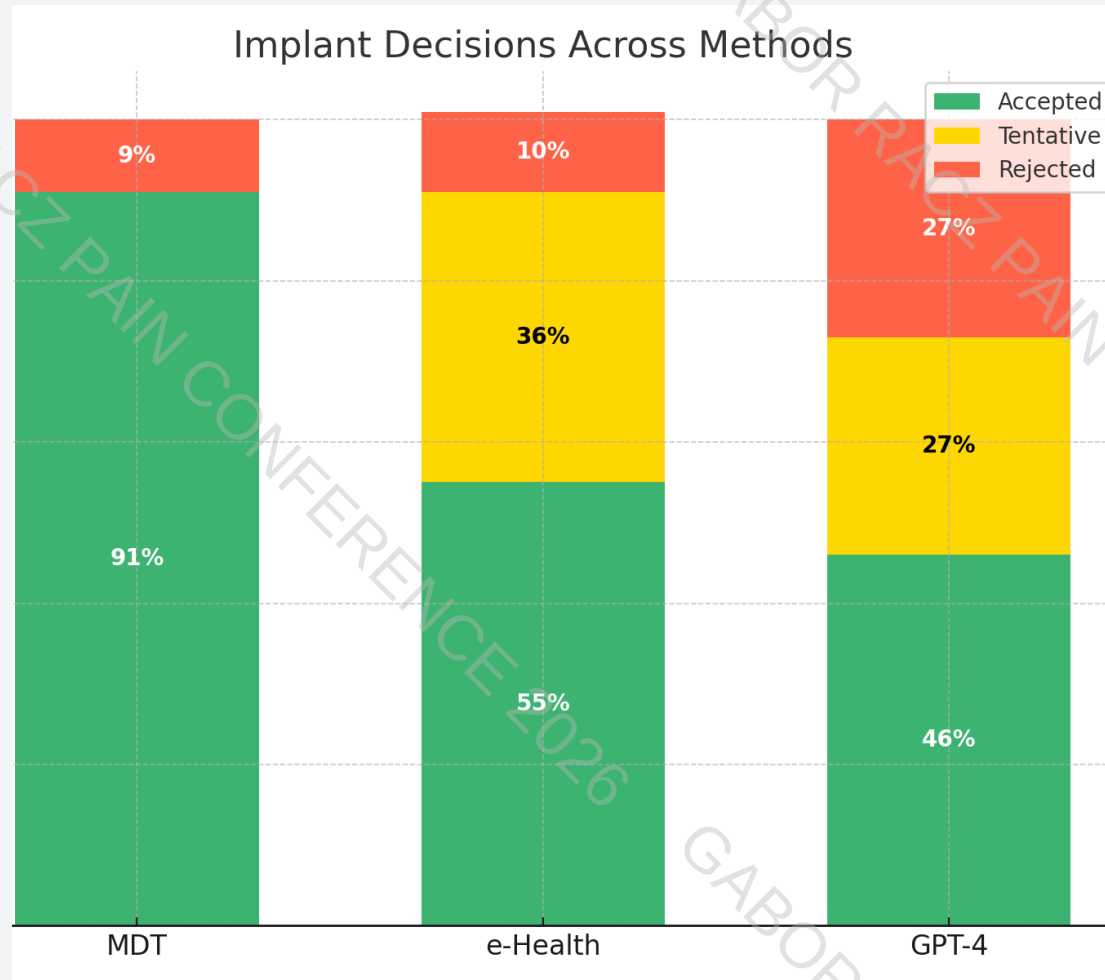
Smart Processing and Intelligent Navigation for Evaluation (SPINE) Study: A Comparative Decision-Making Analysis Evaluating Clinicians against Artificial Intelligence for Spinal Cord Stimulation Therapy

- Aim: Compare AI predictions, e-Health tools, and multidisciplinary team (MDT) decisions for SCS candidacy.





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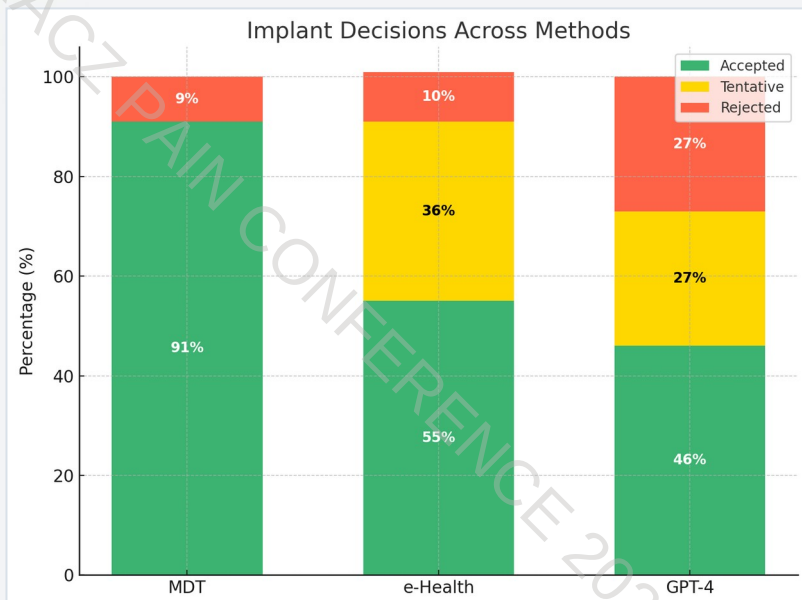
Methods

- Single-center conducted at Fondazione G. Giglio, Italy
- Patient dataset from Fondazione G. Giglio.

Each patient underwent:

- Three independent assessments: MDT, e-Health platform, GPT-4.
- Outcomes: acceptance, rejection, tentative trial.

SPINE — putting GPT-4 next to a multidisciplinary team



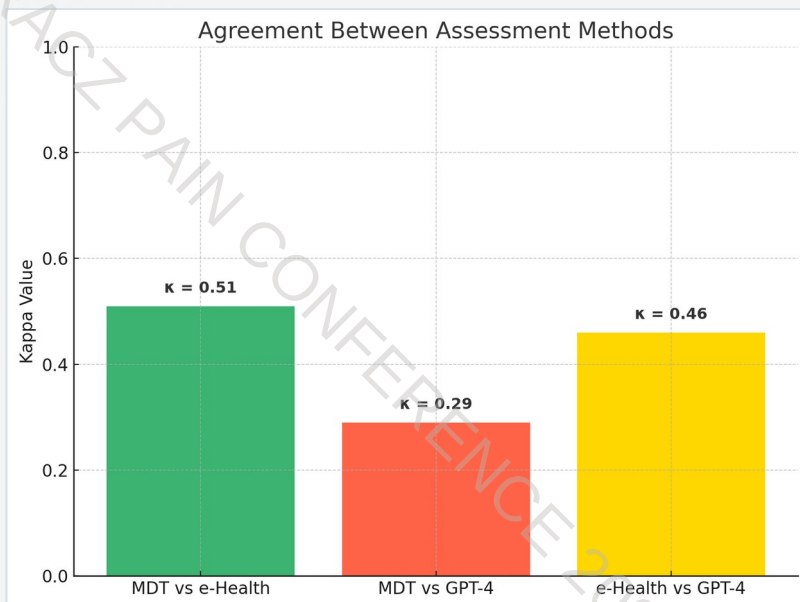
Implant decisions across the three assessment methods — accepted, tentative, rejected.

Lo Bianco G, Therond A, D'Angelo FP, Kapural L, Diwan S, Staats P, Li S, Christo PJ, Deer TR, Robinson CL. Smart Processing and Intelligent Navigation for Evaluation (SPINE). J Pain Res 2025 (PMID 39559514)

STUDY DESIGN

- **93 consecutive adults** referred for SCS evaluation, Fondazione Istituto G. Giglio, Cefalù, January 2022 – March 2024.
- **Three independent assessments** of every patient: the multidisciplinary team, a clinician-input rule-based e-Health tool, and GPT-4.
- **GPT-4 applied zero-shot**, one standardised prompt, anonymised vignettes, offline environment — no fine-tuning on our data.
- **Endpoint: agreement, not outcome.** The study measured decision concordance; it did not measure pain relief or device retention.
- **The cohort was typical of our practice:** chronic back and leg pain 42%, post-surgical / failed back 27%, neuropathic 12%, CRPS 9%.

What that disagreement actually means



Weighted κ between the three assessment methods.

100%

specificity vs the MDT

no inappropriate implant proposed

≈ 72%

sensitivity of GPT-4

it turned away true candidates

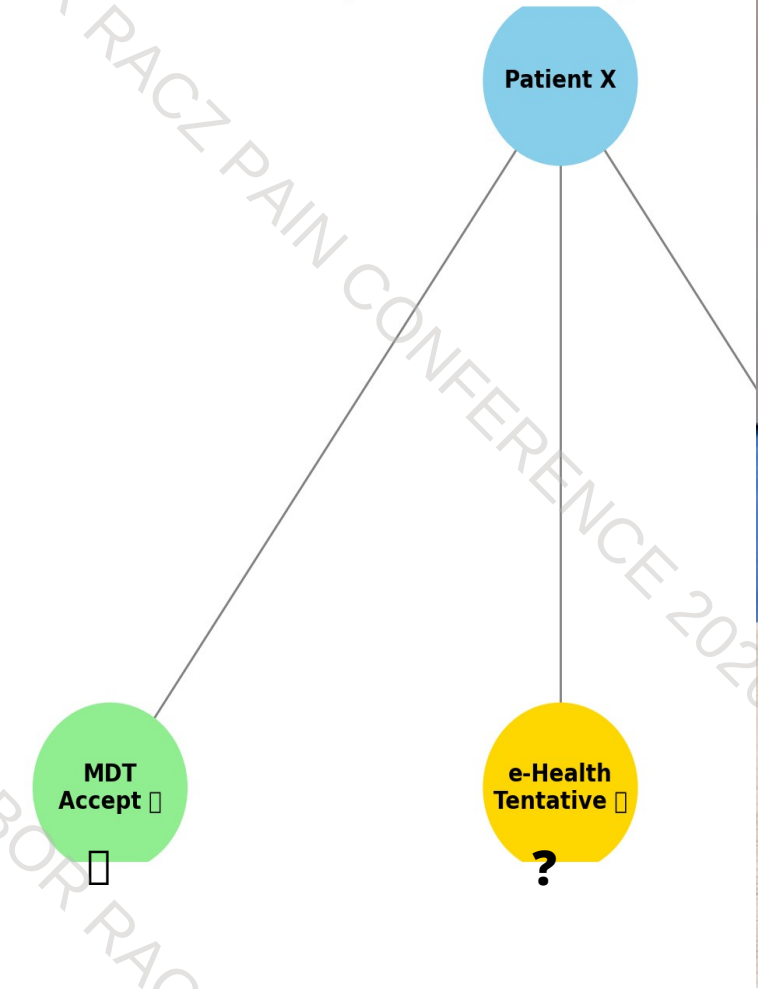
A high-specificity, low-sensitivity filter — conservative by temperament. It will not send the wrong patient for an implant. It will quietly turn away some of the right ones.

Fair agreement with the team is not a failure of the model. It is a measurement of how much of our decision is not written in the chart.

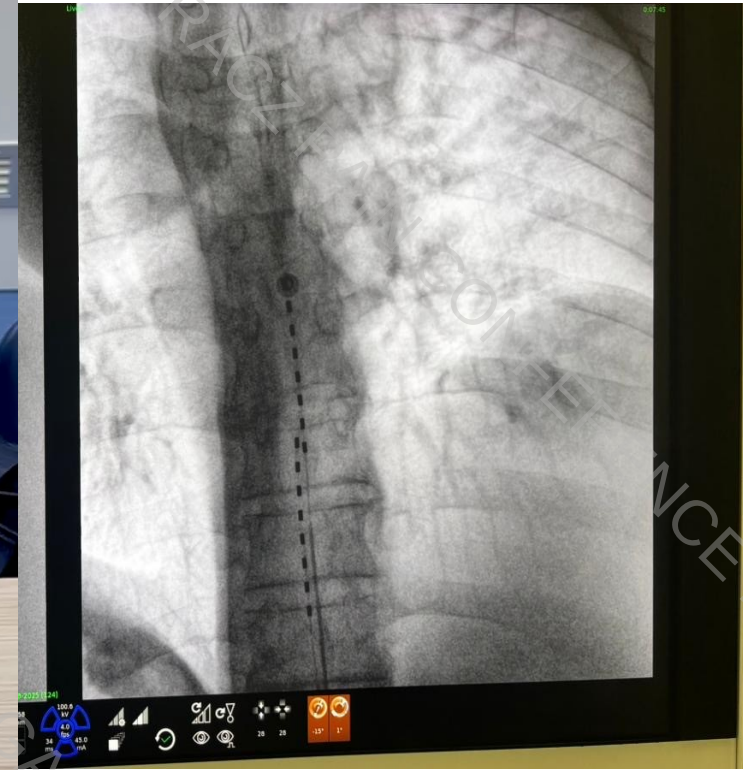
Example Case

compare decision paths of MDT, e-Health, and GPT-4.

Example Case - Divergent Decisions



patient with back
L4-L5 spinal fusion,
with widespread upper
story of depression
surgery.





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16 • GOVERNANCE

The first guidelines written for us

ASPN Artificial Intelligence Guidelines — expert panel, >12 000 articles screened



WHERE IT HELPS

- Diagnosis and treatment planning — algorithms, patient selection, imaging interpretation
- Treatment optimisation — SCS programming, individualised dosing, VR/AR, complication prediction
- Safety — opioid monitoring, patient-education chatbots
- Workflow — EMR documentation, prior authorisation, coding accuracy
- Research — literature synthesis, study design support

WHERE IT HARMS

- Hallucinated content presented with full confidence
- Over-reliance and automation bias
- Model bias and unfair performance across subgroups
- Data privacy and security exposure
- Limited explainability and no regulatory oversight of most tools

HOW TO MITIGATE

- Ethical and regulatory frameworks agreed before deployment
- Transparency and explainability as procurement requirements
- Restrict clinical use to qualified professionals
- Interdisciplinary collaboration — clinicians, engineers, ethicists
- Continuous monitoring after deployment, not just before

The panel states plainly that these are expert-consensus recommendations, not evidence-based ones — because the randomised evidence does not yet exist.

Massey C, Latif U, Deer TR, et al. Guidelines From the American Society of Pain and Neuroscience for Using Artificial Intelligence in Interventional Spine and Nerve Treatment. *J Pain Res* 2025;18:4211–4235 (doi:10.2147/JPR.S529465)

Why AI Integration Helps

Scalability

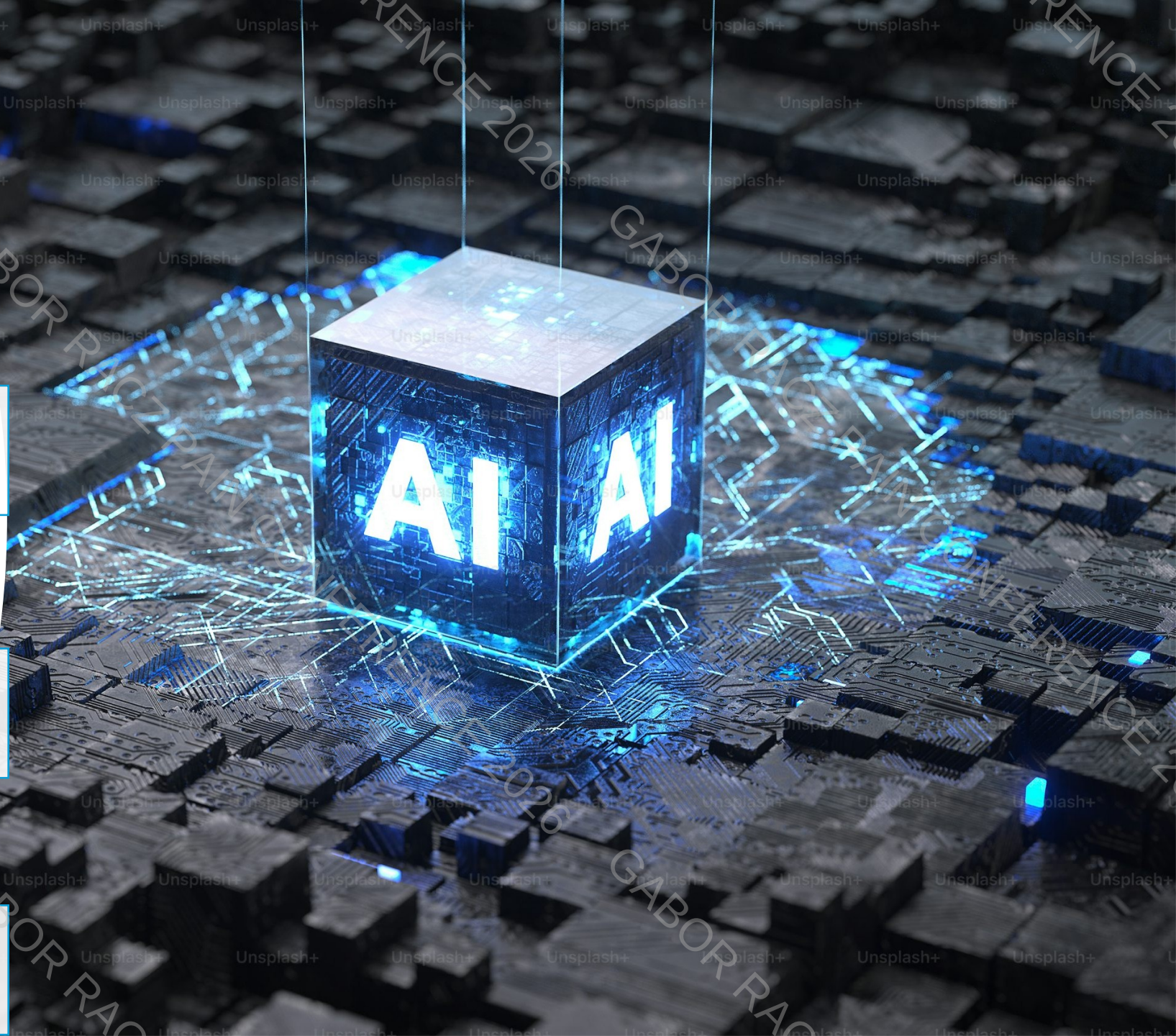
AI allows us to expand expertise to a much larger number of patients and centers.

Standardization

it ensures consistent decision-making, reducing variability between clinicians and centers

Support for new centers

AI can act as a training and guidance tool, helping less experienced teams



Limitations & Ethical Considerations

⚖️ **Disagreement in borderline cases**

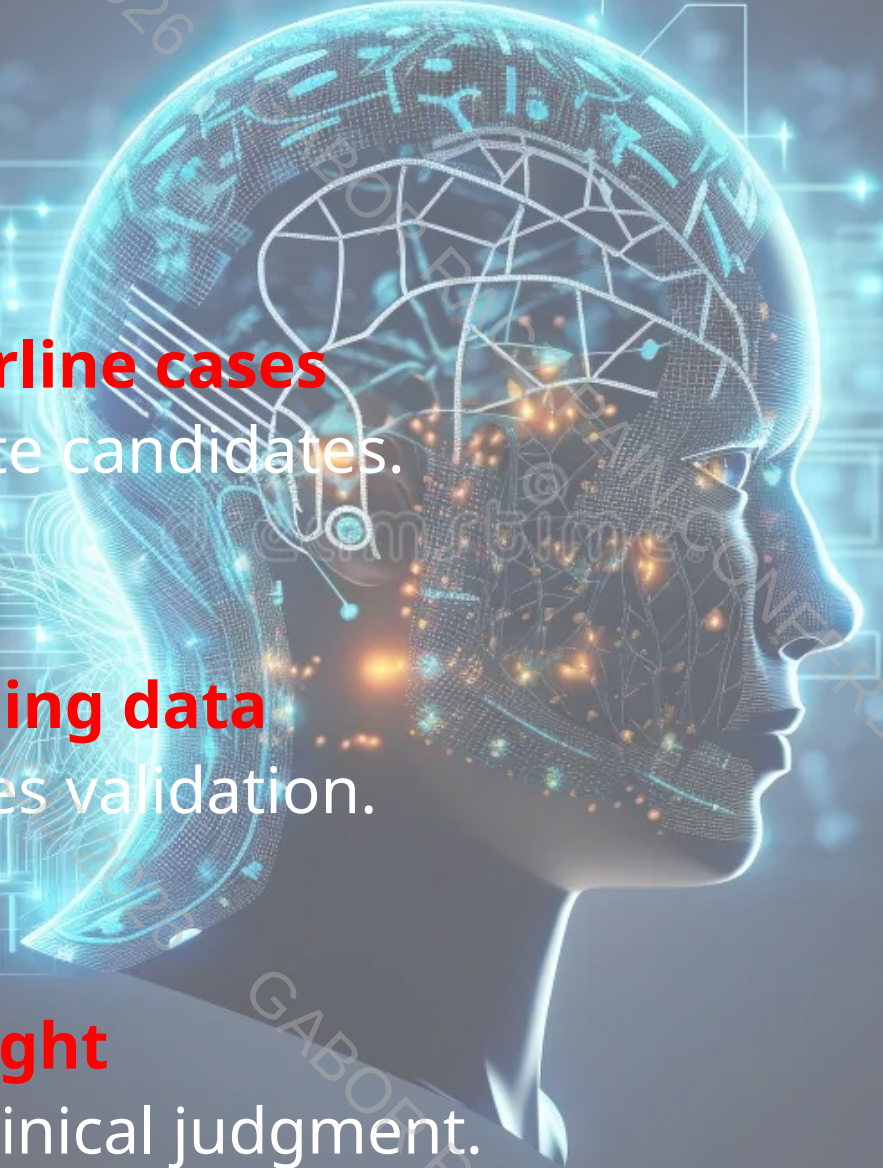
AI may under- or over-estimate candidates.

⚠️ **Risk of bias from training data**

Depends on datasets, requires validation.

👁️💬 **Human oversight**

AI should support, not replace clinical judgment.





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Journal of Pain Research

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Open Access Full Text Article

EDITORIAL

The Future of Pain Medicine: Emerging Technologies, Treatments, and Education

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During the early days of chronic pain management, there was a reliance on the use of opioids with a significant increase in opioid prescriptions by physicians in the 1990s and early 2000s.¹ Opioids can and should be utilized to treat pain in the appropriate patient populations and situations, however, due to the initial consequences of the prior boom in opioid use to treat pain there has been resultant decrease in opioid prescription.¹ This decrease in opioid prescriptions and availability have inspired innovators in the field of pain medicine to develop new modalities and procedures that more effectively target a patient's pain generator. The vital task now with the abundance of newer technologies for chronic pain management is to properly educate the next generation of pain physicians on the benefits and risks of these technologies and more clearly define which therapies are evidence-based.

One such innovation being utilized to combat chronic pain is virtual reality (VR) which provides us with a treatment for chronic pain via modalities such as distraction, neural reprocessing, and mindfulness training.²⁻⁴ The distraction element of VR functions by treating pain via reduction of the subjective sensation of pain by redirecting the user's attention away from the pain.² Although this modality has already been employed for treating acute and post-surgical pain, it has shown promising results in managing chronic pain conditions.^{3,4} As a non-invasive and non-pharmacological approach, it may help tackle the complex challenges of chronic pain, offering a potential pathway to enhance patient outcomes and improve quality of life.² Given its high prevalence and significant public health impact, chronic low back pain is currently the most extensively studied chronic pain condition in the field of VR applications.² Current data show VR not only has a significant impact on alleviating chronic low back pain, with patients reporting reductions of 2.0 points on the NRS in some studies, but it can also impact secondary outcomes that have major impact on a patient's quality of life.^{2,4} Furthermore, some VR technologies have demonstrated a comparable analgesic effect to opioid medications which is extraordinarily impactful as it is being shown to have efficacy without having significant side effects, medication interactions, and being available for patient use at home.² These findings highlight the potential of VR as a groundbreaking tool in the management of chronic pain, and innovators are working to integrate it into other modalities to increase the efficacy. Furthermore, via the use of augmented reality (AR), there is the possibility to have a real-time overlay over what the user experiences in the real world. Thus, patients, who otherwise may not be able to go to a physical appointment or live a considerable distance from a healthcare center can have a higher quality form of telehealth.³ Lastly, there has been sparked interest in using VR to treat nociplastic pain, a type of pain that arises from altered nociception causing the activation of peripheral nociceptors, despite no clear evidence of actual or threatened tissue damage or evidence for disease or lesion of the somatosensory system causing pain. Through the use of VR-based interventions, there is evidence of neuroplastic changes in the sensory and motor regions of the brain resulting in adaptive

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Emerging Technologies in Pain Medicine (JPR 2024)

- **Virtual Reality (VR):** non-pharmacological analgesia, comparable to opioids.
- **Wearables:** continuous monitoring → correlation with pain, reduced depression and opioid use.
- **Artificial Intelligence (AI):** outcome prediction, personalized neuromodulation.
- **Psychedelics:** novel perspectives for chronic nociplastic pain.
- **Education:** preparing the next generation of pain specialists.

Finally — objective pain assessment

"How bad is it, 0–10?" is the last subjective test in modern medicine.

Journal of Pain Research

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ORIGINAL RESEARCH

Employing the Artificial Intelligence Object Detection Tool YOLOv8 for Real-Time Pain Detection: A Feasibility Study

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Introduction: Effective pain management is crucial for patient care, impacting comfort, recovery, and overall well-being. Traditional subjective pain assessment methods can be challenging, particularly in specific patient populations. This research explores an alternative approach using computer vision (CV) to detect pain through facial expressions.

Methods: The study implements the YOLOv8 real-time object detection model to analyze facial expressions indicative of pain. Given four pain datasets, a dataset of pain-expressing faces was compiled, and each image was carefully labeled based on the presence of pain-associated Action Units (AUs). The labeling distinguished between two classes: pain and no pain. The pain category included specific AUs (AU4, AU6, AU7, AU9, AU10, and AU43) following the Prkachin and Solomon Pain Intensity (PSP) scoring method. Images showing these AUs with a PSP score above 2 were labeled as expressing pain. The manual labeling process utilized an open-source tool, makesense.ai, to ensure precise annotation. The dataset was then split into training and testing subsets, each containing a mix of pain and no-pain images. The YOLOv8 model underwent iterative training over 10 epochs. The model's performance was validated using precision, recall, and mean Average Precision (mAP) metrics, and F1 score.

Results: When considering all classes collectively, our model attained a mAP of 0.893 at a threshold of 0.5. The precision for "pain" and "nopain" detection was 0.868 and 0.919, respectively. F1 scores for the classes "pain", "nopain", and "all classes" reached a peak value of 0.80. Finally, the model was tested on the Delaware dataset and in a real-world scenario.

Discussion: Despite limitations, this study highlights the promise of using real-time computer vision models for pain detection, with potential applications in clinical settings. Future research will focus on evaluating the model's generalizability across diverse clinical scenarios and its integration into clinical workflows to improve patient care.

Keywords: pain, artificial intelligence, automatic pain assessment, computer vision, action units

Introduction

Pain assessment is a critical component of patient care.¹ Since subjective methods for pain evaluation rely on self-reporting by patients, these approaches can be prone to inaccuracies, especially in cases where patients are unable to communicate effectively, such as infants,² individuals with cognitive impairments,³ or those under sedation.⁴

Automatic pain assessment (APA) refers to a set of research and clinical methods used to provide an objective and quantifiable measure of pain, reducing reliance on subjective self-reports.⁵ APA usually implements artificial intelligence (AI) strategies.⁶ AI is a multidisciplinary field of computer science focused on designing and developing intelligent systems that mimic human cognitive abilities. Computer vision (CV) is a subfield of AI and computer science that can enable computers to interpret and understand the visual world.⁷ It encompasses many tasks, including image and video

Cascella et al. J Anesth Analg Crit Care (2025) 5:29
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CONSENSUS ARTICLE

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Expert consensus on feasibility and application of automatic pain assessment in routine clinical use

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Abstract

Background Pain is often difficult to assess, particularly in non-communicative patients. While artificial intelligence (AI)-based objective Automatic Pain Assessment (APA) systems are a promising solution, their clinical implementation raises essential questions, primarily regarding clinician acceptance.

Methods We conducted a survey-to-consensus investigation on the feasibility and application of APA for clinical use. Firstly, the steering committee implemented the CHERRIES guidelines and designed a questionnaire for healthcare professionals. Given the survey results, 26 experts in pain medicine were asked to participate in a two-round consensus by rating 10 statements through a 7-point Likert scale. Consensus was defined as $\geq 75\%$ agreement ("agree" or "completely agree"). For both phases, data was collected through online questionnaires and analyzed quantitatively.

Results For the survey, we collected responses from 628 healthcare professionals. The output highlighted excellent acceptance of the technology and a preference for multidimensional techniques. After two rounds, consensus was achieved on 8 out of 10 statements. Experts agreed on APA utility in supporting healthcare professionals and real-time pain monitoring. A strong consensus (96.2%) supported the need to inform patients about the use and limitations of AI systems. Adequate staff training is mandatory. Moreover, 92.3% agreed on the importance of implementing risk management, data quality control, and AI governance throughout the APA lifecycle. The experts stressed the need for internal and external validation processes and periodic updates, even for research purposes. Consensus was also reached about the importance of involving interdisciplinary stakeholders and addressing regulatory, ethical, and social implications. Multimodal inputs (e.g., physiological signals, facial expressions, speech, and clinical data) in APA systems are recommended. Additionally, APA systems should be capable of grading pain levels (e.g., via NRS),

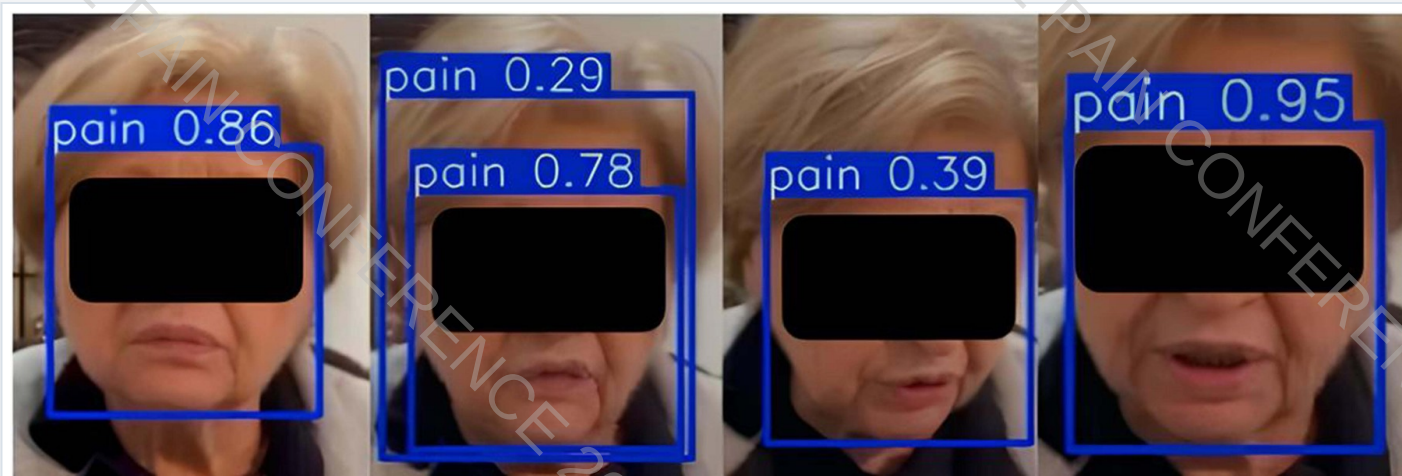
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SENSE — the last subjective measurement in medicine

Zero to ten is still the main outcome in almost every trial we run



A model reading pain from the face in real time — the small movements around the eyes, mouth and brow, with a confidence score for each face. Cascella M, Lo Bianco G, et al. *J Pain Res* 2024;17:3681.

9 / 10

faces read correctly
across all pain expressions

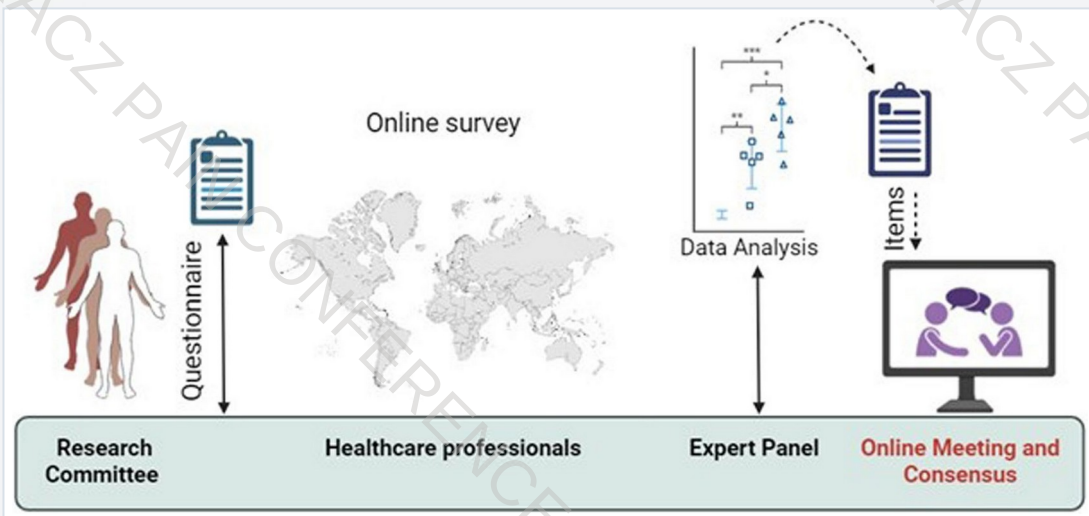
8 / 10

pain vs no pain
best score in the study

WHY IT MATTERS HERE

- Patients who cannot self-report: sedated, confused, very young, or who do not share our language
- Watching all the time, instead of one score taken in ten seconds
- Removes the bias of the person asking — and gives a number a computer can store

From feasibility to clinical consensus



Survey-to-consensus design: steering committee → 628 healthcare professionals → 26-expert two-round Delphi. Cascella M, ... Lo Bianco G, et al. *J Anesth Analg Crit Care* 2025;5:29.

628

healthcare professionals surveyed
CHERRIES-compliant

8 / 10

statements reaching consensus
two Delphi rounds, 26 experts

96.2%

agreed patients must be informed
about AI use and its limits

92.3%

agreed on AI governance
risk management, data quality, audit

The professional community is not the obstacle. Acceptance is high — provided the systems are multimodal, governed, and openly disclosed to the patient.



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19 • PRACTICE

Where I let AI into my practice today

USE IT NOW

- Documentation and ambient scribing, with the note read and signed by me
- Patient education material — drafted by AI, verified before it reaches the patient
- Literature retrieval and synthesis for talks and papers, with sources checked
- Image labelling and view recognition — 97.7% accuracy on lumbar US views, and it decides nothing
- Coding, prior authorisation and administrative workload

USE IT CAREFULLY

- Risk stratification and triage of a waiting list — as a prompt to look closer, never a verdict
- Pre-screening for neuromodulation candidacy, front of the pathway only
- Objective pain monitoring in patients who cannot self-report
- Programming suggestions for stimulation, reviewed against the patient in front of you

NOT YET

- Any autonomous decision to implant, refuse or explant
- Unsupervised advice reaching the patient directly
- Anything that cannot name the clinician accountable for the output
- Any tool whose vendor cannot answer the seven questions

The dividing line is not how clever the tool is. It is whether a named human reads the output before it touches the patient.



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CONCLUSIONS

Take-home messages

01

The hard part is prediction, not technique

Most of what we call failure is a choosing error with a perfectly performed procedure attached to it.

02

The models are good — at ranking

AUC 0.72–0.86 for response prediction. Useful for counselling and triage; not sufficient to decide alone.

03

LLMs are for communication, not judgment

Reliable and clear across three of our studies. Measurably weaker on technical depth — and clarity is a poor signal of correctness.

04

AI approximated our team but did not replicate it

In SPINE, GPT-4 was a high-specificity, low-sensitivity filter: $\kappa = 0.29$ against the MDT, 100% specificity, ~72% sensitivity.

05

Approval is not validation

Over 1500 FDA-authorised AI devices, 76% radiology, almost none in interventional pain — and the sepsis model reminds us what deployment without a trial looks like.

06

Place the machine where its errors are cheap

Same model, front of the pathway or end of it — identical accuracy, completely different ethics.



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CLOSING

Artificial intelligence can tell us what is likely.
Only we can decide what is right.

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Thank you. Giuliano Lo Bianco, MD, PhD, FIPP, EDPM · info@drgiulianolobianco.com · Fondazione Istituto G. Giglio, Cefalù — Italian Chair, WIP

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