

Advancements in Pediatric Dermatology: Balancing Ethics and Ensuring Patient Safety

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Abstract

Significant improvements in diagnosis and treatment of childhood skin disease have been made in pediatric dermatology for children with complex skin disease. At the same time, however, these advancements beget ethics problems like consent in pediatric care, equitable access to treatment and the application of new therapies with long term safety profiles proven during staged testing. This article discusses the ethical challenges and safety issues in pediatric dermatology and outlines that the patient centered approach, research integrity and clinical guidelines should be considered during practice.¹

Keywords: Pediatric dermatology, ethics, patient safety, consent, novel therapies.

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The pediatric dermatology specializes in diagnosis and treatment of skin, hair, and nail disorders of children with unique physiological and psychological conditions. Since the prevalence of pediatric skin disorders such as atopic dermatitis, psoriasis and rare genodermatoses is growing, a need has arisen for a special treatment. These advances come along with ethical challenges and patients' safety concerns, and thus, a more nuanced understanding of pediatric care's moral and clinical aspects.²

Advancements in Pediatric Dermatology

• Innovative Diagnostic Techniques

Dermatoscopy:

- Enhanced visualization of pediatric skin conditions.

Genetic Testing: Identification of rare disorders like epidermolysis bullosa.

- **AI and Teledermatology:** Increased access to dermatologic care in remote areas.

• Therapeutic Developments

- **Biologics:** Effective management of severe conditions, such as psoriasis.

- **Laser Treatments:** Safe use in conditions like hemangiomas.
- **Topical Innovations:** Steroid - sparing agents for eczema and other inflammatory conditions.

Ethical Dilemmas in Pediatric Dermatology

1. Consent and Assent

Children are often unable to provide informed consent. Decision-making lies with parents or guardians, which can create conflicts when opinions differ regarding treatment risks and benefits. It is crucial to incorporate the child's assent whenever appropriate, respecting their evolving autonomy.³

2. Equity in Care

Access to advanced dermatologic care remains uneven, particularly in low-resource settings. Ethical questions arise when high-cost treatments, such as biologics, are unavailable to underserved populations. Addressing these disparities is vital for ethical practice.⁴

3. Research Ethics

The inclusion of pediatric populations in clinical trials poses challenges, particularly in

ensuring safety while addressing the lack of data specific to children. Balancing the need for evidence-based pediatric treatments with the ethical imperative to protect children from harm is critical.

Patient Safety Considerations

1. Drug Safety and Long-term Effects

Children are at greater risk of adverse effects due to differences in metabolism and immune response. Rigorous pharmacovigilance and post-marketing surveillance are essential to ensure safety.⁵

Non-invasive Treatments

2. The preference for non-invasive or minimally invasive options aligns with the principle of “do no harm.” For instance, advancements in topical and laser therapies have minimized the risks associated with systemic treatments.

3. Training and Expertise

Ensuring that healthcare providers are adequately trained in pediatric dermatology reduces the risk of misdiagnosis and inappropriate treatments, enhancing patient safety.

Addressing the Challenges

4. Strengthening Clinical Guidelines :

Developing and updating evidence-based guidelines tailored to pediatric populations can improve consistency in care and mitigate risks.

5. Patient and Family Education

Educating families about the nature of dermatologic conditions, treatment options, and

potential risks fosters informed decision-making and shared responsibility.

6. Advocacy for Policy Changes

Advocating for policies that improve access to care, subsidize expensive treatments, and support pediatric research can address systemic inequities in dermatologic care.

Conclusion

Advancements in pediatric dermatology have brought transformative benefits but also pose ethical dilemmas and patient safety concerns. Addressing these challenges requires a multidisciplinary approach, integrating ethical principles, evidence-based practices, and patient-centered care. By prioritizing safety, equity, and research integrity, pediatric dermatology can continue to improve outcomes while maintaining the highest standards of ethical practice.

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