Research Horizon

ISSN: 2808-0696 (p), 2807-9531 (e)

Research Horizon
Volume: 06
Issue: 04
Year: 2026
Page: 1903-1912

Citation:
Ferdian, H., & Jamaludin, A. (2026). Sex assignment and legal protection for children with dsd in indonesia: a normative analysis of legal, medical, and religious perspectives. *Research Horizon*, *6*(4), 1903-1912.

Article History:
Received: July 14, 2026
Revised: August 18, 2026
Accepted: August 22, 2026
Online since: August 25, 2026

Sex Assignment and Legal Protection for Children with DSD in Indonesia: A Normative Analysis of Legal, Medical, and Religious Perspectives

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Abstract

Disorders of sex development involving ambiguous genitalia present complex challenges because sex assignment decisions intersect with medical uncertainty, child rights, positive law, Islamic jurisprudence, and socio-cultural expectations. In Indonesia, the absence of DSD-specific regulations may create uncertainty regarding sex assignment, informed consent, multidisciplinary decision-making, and irreversible genital surgery. This study aims to examine the Indonesian legal framework governing sex assignment and legal protection for pediatric patients with DSD, assess its consistency with international medical standards, identify disharmony among legal, Islamic, and cultural perspectives, and formulate a harmonization framework. The study uses a normative juridical approach through library research, employing statutory, conceptual, comparative, and gap analysis methods. The findings reveal four principal regulatory gaps: the absence of DSD-specific technical guidelines, mandatory multidisciplinary team requirements, legal safeguards for deferring irreversible surgery, and mechanisms for progressive child participation. The study also identifies terminological, substantive, and operational disharmony between positive law, Islamic jurisprudence, medical standards, and socio-cultural practices. It concludes that Indonesia needs an integrated, child-centered DSD regulatory framework that emphasizes multidisciplinary assessment, DSD-specific informed consent, protection against premature irreversible interventions, and culturally and religiously sensitive family counseling to safeguard children's long-term rights and best interests.

Keywords

Child Protection, Disorders of Sex Development, Legal Harmonization, Sex Assignment, Surgical Deferral, Women's Rights.

1. Introduction

The birth of a child is a profoundly meaningful event with biological, social, legal, and spiritual significance. In most cases, sex assignment is determined immediately after birth based on visual examination of the external genitalia. For some neonates, however, external anatomy does not provide sufficient information to establish sex clearly, initiating a complex process of medical evaluation and decision-making. This condition is commonly described as Disorders/Differences of Sex Development (DSD), including clinical presentations involving ambiguous genitalia (Indyk, 2017). DSD refers to congenital conditions in which chromosomal, gonadal, or anatomical sex development is atypical (Hughes et al., 2006; Sullivan et al., 2013). The spectrum includes Congenital Adrenal Hyperplasia (CAH) in 46, XX individuals, partial or complete Androgen Insensitivity Syndrome (AIS) in 46, XY individuals, gonadal dysgenesis, ovotesticular DSD, severe hypospadias, and other complex genital anomalies. Globally, ambiguous genitalia requiring immediate assessment occurs in approximately 1 in 4,500 to 1 in 5,500 live births, whereas the prevalence may reach 1 in 200 to 1 in 300 when the broader spectrum of DSD is considered (Blackless et al., 2000; Thyen et al., 2006).

In Indonesia, DSD represents a significant clinical and social concern. Data from Cipto Mangunkusumo Hospital, Jakarta, indicate that ambiguous genitalia and severe hypospadias are among the most common presenting conditions in patients with DSD, with 59.5% of patients having been raised as male before receiving a definitive diagnosis (Utari et al., 2013). This finding illustrates the potential consequences of assigning sex primarily based on external appearance before comprehensive diagnostic evaluation. International consensus recommendations emphasize that DSD management requires systematic assessment of chromosomal, gonadal, hormonal, anatomical, and psychosocial characteristics through multidisciplinary care (Hughes et al., 2006). The consequences of delayed or inadequate management extend beyond physical health. Research involving Indonesian patients has documented substantial social stigmatization associated with atypical physical characteristics, affecting both individuals with DSD and their families (Ediati et al., 2017; Cousin et al., 2023). DSD management requires an integrated framework that addresses not only medical treatment but also informed decision-making, psychosocial well-being, legal protection, and family involvement.

From a legal perspective, the management of ambiguous genitalia in Indonesia presents several unresolved challenges. First, the population administration system recognizes male and female sex categories. It requires birth registration within 60 days but provides no mechanism to defer sex registration when further DSD evaluation is needed. Second, although Law Number 17 of 2023 concerning Health provides a broader legal basis, including Article 137 and its Elucidation concerning reconstructive procedures for ambiguous genitalia, Indonesia lacks specific technical regulations governing sex assignment, multidisciplinary evaluation, and DSD-specific informed consent. Third, Law Number 35 of 2014 concerning Child Protection establishes the best interests of the child as a fundamental principle. Yet, no specific legal mechanism regulates the child's progressive participation in decisions involving potentially irreversible medical procedures. Fourth, MUI Fatwa Number 03/MUNAS-VIII/MUI/2010 distinguishes permissible genital completion surgery for *khuntsa* from prohibited sex reassignment surgery and recommends the development of technical regulations. However, this recommendation has not been fully integrated into the national regulatory framework. These conditions demonstrate a persistent gap between positive law, medical standards, religious considerations, and socio-cultural realities.

Based on these gaps, this study aims to examine the legal framework governing sex assignment and legal protection for pediatric patients with ambiguous genitalia

in Indonesia. It analyzes the consistency of Indonesian positive law with international DSD medical standards, identifies areas of disharmony among legal, Islamic, and socio-cultural perspectives, and formulates a harmonization framework for DSD management. The proposed framework focuses on strengthening DSD-specific informed consent, multidisciplinary decision-making, protection against premature irreversible surgery, and culturally and religiously sensitive family involvement. This study seeks to contribute to a child-centered legal framework that prioritizes the best interests, bodily integrity, and long-term rights of pediatric patients with DSD.

2. Methods

This study employs a normative juridical approach (normative legal research) using a library research method. This approach was selected because the study focuses on legal norms, principles, and doctrines relevant to sex assignment and legal protection for pediatric patients with ambiguous genitalia in Indonesia. Normative juridical research enables the analysis of applicable legal provisions and their relationship with medical, ethical, and socio-cultural considerations surrounding DSD (Marzuki, 2017). The legal materials examined in this study consist of primary, secondary, and tertiary legal materials. Primary legal materials include the 1945 Constitution of the Republic of Indonesia, Law Number 17 of 2023 concerning Health, Law Number 35 of 2014 concerning Child Protection, Government Regulation Number 28 of 2024 concerning the Implementation of Law Number 17 of 2023, Government Regulation Number 61 of 2014 concerning Reproductive Health, Minister of Health Regulation Number 290/Menkes/Per/III/2008 concerning Consent for Medical Action, Presidential Decree Number 36 of 1990 concerning the Ratification of the Convention on the Rights of the Child, the Indonesian Civil Code (*Kitab Undang-Undang Hukum Perdata/*KUHPerdata), particularly Article 1320, and Indonesian Ulema Council (*Majelis Ulama Indonesia/*MUI) Fatwa Number 03/MUNAS-VIII/MUI/2010.

Secondary legal materials comprise international DSD consensus documents and clinical guidelines, including the Chicago Consensus (2006), Global DSD Update (2016), and DSD Consensus Statement published in *Nature Reviews Endocrinology* (2018). These materials are complemented by national and international medical journals addressing DSD in Indonesia, biomedical ethics literature, and scientific publications concerning health law, Islamic law, and socio-cultural perspectives on intersexuality in Indonesia. Meanwhile, tertiary legal materials include legal dictionaries, medical encyclopedias, and medical terminology dictionaries. The collection of legal materials was conducted through systematic inventory and identification of relevant sources obtained from legal databases, including JDIH and Peraturan.go.id, as well as scientific databases such as PubMed, Google Scholar, and DOAJ, together with relevant MUI fatwa documents.

The collected materials were analyzed qualitatively through several complementary approaches. First, the statute approach examined the hierarchy, substance, and coherence of relevant laws and regulations governing child protection, medical treatment, reproductive health, and informed consent. Second, the conceptual approach examined the intersection of legal, medical, and ethical concepts, particularly informed consent, the best interests of the child, and the principle of non-maleficence in decisions concerning pediatric patients with DSD. Third, the comparative approach compared Indonesia's legal framework with international medical standards and practices in other jurisdictions.

A gap analysis identified discrepancies between existing positive legal norms, contemporary medical standards, and Indonesia's socio-cultural and religious realities. This analysis was intended to assess whether the existing legal framework adequately accommodates the specific needs and rights of children with ambiguous

genitalia, particularly regarding sex assignment, medical decision-making, informed consent, and protection from potentially harmful interventions. of integrating these approaches, the study seeks to provide a comprehensive normative assessment of legal protection for pediatric patients with DSD within the Indonesian legal system.

3. Results and Discussion

3.1. Indonesia's Positive Legal Framework and Regulatory Adequacy

Indonesia's positive legal framework governing sex assignment and the legal protection of pediatric patients with ambiguous genitalia is spread across several interconnected regulations. Law Number 17 of 2023 concerning Health serves as the primary legal umbrella. Article 137 and its Elucidation constitute the most crucial norms. The Elucidation of Article 137 paragraph (2) explicitly states that reconstructive plastic surgery is not intended to change a person's sex, but rather to adjust the genitals to their actual sex, whereas a change of sex requires a court decree. This provision legally permits corrective procedures for ambiguous genitalia as reconstructive surgery (*tashih*), distinct from sex reassignment surgery (*taghyir*). This distinction is consistent with Widhiatmoko and Suyanto (2013), who emphasized the legal distinction between sex adjustment in individuals with ambiguous genitalia and legal sex change in Indonesia. Article 293 mandates comprehensive informed consent encompassing seven mandatory explanatory elements, written consent for high-risk procedures, and parental/guardian authority for incapacitated patients. Article 4 guarantees the patient's right to safe and quality services, the right to accept/refuse procedures, and the right to confidentiality. Article 41 paragraph (3) mandates newborn screening as a foundation for early DSD detection. Ediati et al. (2015) further demonstrated the complexity of gender development among Indonesian individuals with DSD, supporting the need for careful and individualized sex-assignment decisions.

Government Regulation (PP) Number 28 of 2024 operationalizes the principles of the Health Law through Article 737 (patient's right to information), Articles 778–784 (medical records), and Article 783 (confidentiality). Law Number 35 of 2014 concerning Child Protection affirms the principle of the *best interests of the child* in Article 2 and the child's right to health in Article 8. These provisions are consistent with the biomedical ethical principles of autonomy, beneficence, non-maleficence, and justice proposed by Beauchamp and Childress (1989). Minister of Health Regulation Number 290/2008 remains in effect as a detailed technical guide for informed consent, regulating the definition of authorized immediate family, the obligation for written consent for high-risk procedures, and emergency exceptions. Presidential Decree Number 36 of 1990 binds Indonesia to CRC standards, while Article 1320 of the Civil Code provides the framework for the validity of therapeutic agreements.

Despite demonstrating significant normative progress, these regulations remain operationally inadequate. There are four crucial regulatory voids. First, there are no specific technical regulations for DSD; there are no National Medical Service Guidelines (*Pedoman Nasional Pelayanan Kedokteran*/PNPK), Minister of Health Decrees (*Keputusan Menteri Kesehatan*/KMK), or Standard Operating Procedures (SOPs) regulating diagnostic algorithms, Multidisciplinary Team (MDT) requirements, DSD-specific informed consent procedures, and criteria for urgent versus elective surgery. This gap contrasts with international DSD consensus recommendations emphasizing multidisciplinary care and individualized decision-making (Lee et al., 2016; Cools et al., 2018). Second, there is binary rigidity of civil administration; the population administration law mandates the recording of birth certificates within 60 days without a deferment mechanism for DSD cases. Third, a child participation mechanism is absent; the concept of *Gillick competence* is

unrecognized in Indonesian law, leaving decisions regarding irreversible surgery entirely to parents/guardians. This concern is consistent with Hemesath et al. (2019), who identified the timing of sex assignment and surgery as a continuing ethical controversy. OHCHR (2023) likewise emphasizes the rights of intersex children to bodily integrity, informed participation, and protection from unnecessary interventions. Fourth, no mandate requires a multidisciplinary approach in DSD management.

In conclusion, while the positive legal framework provides an adequate normative foundation, it urgently requires technical regulatory infrastructure in the form of a PNPK or KMK on DSD Management to guarantee legal certainty. Such regulation is necessary to establish standardized diagnostic and clinical procedures, strengthen informed consent, facilitate multidisciplinary decision-making, and ensure that sex assignment and medical interventions prioritize the best interests, bodily integrity, and long-term rights of pediatric patients with DSD.

3.2. Positive Law and International Medical Standards

Three consensus documents serve as primary references for global DSD management: the Chicago Consensus 2006 by Hughes et al. (2006), which introduced DSD terminology, karyotype-based classification, and a comprehensive MDT approach while acknowledging the lack of sufficient evidence supporting early genital surgery; the Global DSD Update 2016 by Lee et al. (2016), which reaffirmed that infant surgery carries risks and that future gender development cannot be predicted with certainty; and Cools et al. (2018), which emphasized that DSD-related surgical decisions must incorporate ethical, legal, and human rights considerations. These recommendations are consistent with the principles of autonomy, beneficence, non-maleficence, and justice in biomedical ethics (Beauchamp & Childress, 1989). The complexity of gender development is particularly relevant in Indonesia, as Ediati et al. (2015) demonstrated variations in gender development among Indonesian children, adolescents, and adults with DSD. Therefore, sex assignment should consider diagnostic uncertainty, long-term development, and the child's best interests rather than relying solely on anatomical characteristics at birth.

The first discrepancy concerns the informed consent gap. International standards require comprehensive and ongoing informed consent that provides parents or guardians with adequate information regarding diagnostic uncertainty, treatment alternatives, the possibility of surgical deferral, and the long-term consequences of irreversible procedures (Lee et al., 2016; Cools et al., 2018). In contrast, Article 293 of Health Law Number 17 of 2023 and Minister of Health Regulation Number 290 of 2008 regulate informed consent primarily through general requirements and do not specifically require disclosure of DSD-related diagnostic uncertainty, surgical deferral as a legitimate alternative, or the irreversible nature of genital surgery. As a result, parents may consent without fully understanding the implications of the decision. This concern is important because DSD-related decisions may have lifelong physical, psychological, and gender-identity consequences (Hemesath et al., 2019). It also reflects the principle of non-maleficence, which requires healthcare professionals to minimize potential harm when the benefits of an intervention remain uncertain (Beauchamp & Childress, 1989).

The second discrepancy concerns the multidisciplinary approach gap, while the third concerns the irreversible surgery deferral gap. The Chicago Consensus recommends an MDT involving pediatric endocrinologists, surgeons or urologists, psychologists or psychiatrists, gynecologists, geneticists, neonatologists, social workers, and medical ethicists. Ahmed et al. (2025) later reinforced this recommendation. However, Indonesian legislation does not specifically mandate MDT assessment for DSD cases. Evidence from the Diponegoro University MDT demonstrates its practical importance: over 17 years (2004–2020), the team managed 1,184 patients, with genetic analysis identifying pathogenic variants in 21% of cases.

Meanwhile, international standards consistently recommend caution regarding irreversible genital surgery. The Chicago Consensus restricted clitoroplasty to severe virilization (Prader III–V) and did not support infant vaginoplasty, while the Global DSD Update emphasized the risks associated with infant surgery (Lee et al., 2016). Cools et al. (2018) further emphasized ethical, legal, and human rights considerations. Indonesian law, however, does not clearly distinguish urgent from elective procedures, restrict cosmetic genitoplasty in children, or provide specific legal protection for physicians who defer surgery. This creates a dilemma: postponement may expose physicians to negligence claims, whereas early irreversible surgery may conflict with the child's best interests if the assigned sex differs from the gender identity that subsequently develops (Meyer-Bahlburg, 2002; Hemesath et al., 2019).

These discrepancies are further supported by contemporary human rights and socio-legal perspectives. OHCHR (2023) emphasizes bodily integrity, meaningful participation, and protection from unnecessary medical interventions, while Bastien Charlebois (2024) challenges the assumption that early intervention is inherently beneficial. In Indonesia, legal and Islamic scholarship concerning ambiguous genitalia and *khuntsa* similarly emphasizes careful determination of sex status rather than arbitrary assignment (Widhiatmoko & Suyanto, 2013; Zabidi, 2019; Solekhan & Mubarok, 2020). Therefore, although Indonesia's positive legal framework provides a general foundation for DSD protection, substantial gaps remain compared with international standards. Specific technical regulations, such as a PNPK or KMK on DSD management, are needed to establish DSD-specific informed consent, mandatory MDT assessment, clear criteria for urgent and elective intervention, and safeguards for deferring irreversible surgery while prioritizing the child's best interests, bodily integrity, and long-term rights.

3.3. Law, Islamic Jurisprudence, Culture, and Regulatory Formulation

Three layers of disharmony are identified among positive law, Islamic perspectives, and cultural realities in the management of DSD. The first is terminological disharmony. Positive law utilizes modern medical terminology, including DSD, karyotype, CAH, and AIS, whereas MUI Fatwa Number 03/MUNAS-VIII/MUI/2010 applies an Islamic jurisprudential (*fiqh*) framework based on *khuntsa musykil* and *khuntsa ghairu musykil*. The absence of an official terminological bridge may create miscommunication, as religious authorities may issue guidance without sufficient medical information, while healthcare professionals may provide recommendations without fully understanding the family's religious value framework (Ediati et al., 2015). This situation highlights the importance of interdisciplinary interpretation that connects legal, medical, and religious perspectives in DSD management (Marzuki, 2017; Zabidi, 2019).

The second is substantive disharmony. An important convergence exists between the Elucidation of Article 137 of Law Number 17 of 2023 and the MUI Fatwa, as both permit reconstructive or completion surgery (*tashih*) and prohibit sex reassignment surgery (*taghyir*). However, three divergences remain. First, the determination criteria differ. The MUI Fatwa emphasizes the dominance of sexual function based on medical considerations and the condition of internal organs, whereas international DSD standards recommend a broader assessment that incorporates psychological and psychosocial dimensions (Lee et al., 2016; Cools et al., 2018). Second, timing differs. Cultural and religious pressures, including the seventh-day *aqiqah* tradition, extended-family expectations, and social stigma, may encourage immediate intervention, contrasting with international standards that emphasize caution and possible deferral of irreversible procedures (Hemesath et al., 2019). Third, gender diversity remains insufficiently accommodated. Indonesia's cultural heritage recognizes more than two gender categories, including the five Bugis categories of *oroane*, *makkunrai*, *calabai*, *calalai*, and *bissu* (Peletz, 2009), yet this

diversity is not fully accommodated within either binary positive law or the MUI Fatwa.

The third layer is operational disharmony. The 2010 MUI Fatwa recommends that medical professional organizations establish ethical guidelines and that the government or Parliament formulate technical legal rules concerning genital completion surgery. However, as of 2026, these recommendations have not materialized into specific Permenkes, PNPK, or professional codes of ethics for DSD. Consequently, DSD management remains within a technical regulatory vacuum. Its effects include premature surgical decision-making due to social pressure, with 59.5% of patients reportedly raised as male before diagnosis (Utari et al., 2013), stigmatization that may encourage normalization rather than decisions based on the child's best interests (Ediati et al., 2017), and fragmented management across medical, legal, and religious systems. These concerns are consistent with contemporary critiques of irreversible interventions performed under assumptions of medical necessity or social normalization (Bastien Charlebois, 2024; OHCHR, 2023).

Harmonization should begin with the development of National DSD Guidelines (KMK) establishing diagnostic algorithms based on the Chicago Consensus 2006, mandatory MDT requirements, DSD-specific informed consent procedures, criteria for urgent and elective surgery, and psychosocial counseling. Second, a Medical-Fiqh Terminology Guide should be developed collaboratively by MUI, the Ministry of Health, IDI, IDAI, and IAUI to establish a common conceptual framework connecting DSD terminology with *khuntsa musykil* and *khuntsa ghairu musykil*. Third, population administration regulations should include a mechanism to temporarily defer sex registration in DSD cases, with subsequent revision based on MDT recommendations. Fourth, a Permenkes should provide explicit legal protection for physicians who defer elective and irreversible genital surgery based on MDT recommendations and the child's best interests. Finally, culturally and religiously sensitive family counseling should become an integral component of DSD management and hospital accreditation standards. These measures are grounded in the principle of the *best interests of the child* under Law Number 35 of 2014 and the CRC ratified through Keppres Number 36 of 1990. Accordingly, medical, legal, and religious decisions concerning children with ambiguous genitalia should prioritize their long-term welfare, bodily integrity, and rights rather than social or religious pressure (Beauchamp & Childress, 1989; Cools et al., 2018).

4. Conclusion

This study finds that Indonesia has established a normative foundation for protecting pediatric patients with DSD through the health law, child protection law, population administration regulations, informed consent provisions, and the ratification of the Convention on the Rights of the Child. However, these regulations remain insufficiently specific to address the complexity of DSD management. The main findings reveal four regulatory gaps: the absence of DSD-specific technical guidelines, the lack of mandatory multidisciplinary team (MDT) assessment, limited safeguards for deferring irreversible genital surgery, and the absence of a mechanism for progressive child participation in decision-making. The study also identifies terminological, substantive, and operational disharmony between positive law, Islamic jurisprudence, medical standards, and socio-cultural practices. These findings imply that legal protection should move beyond general medical regulations toward a child-centered DSD framework that integrates medical, legal, ethical, religious, and cultural considerations. Harmonization should therefore prioritize National DSD Guidelines, standardized DSD-specific informed consent, MDT decision-making, temporary deferral of sex registration where clinically necessary,

legal protection for appropriate surgical deferral, and culturally and religiously sensitive family counseling.

This study is limited by its normative juridical design and reliance on secondary legal, medical, ethical, and religious materials. It does not include empirical data from children with DSD, parents, healthcare professionals, judges, civil registration officials, or religious authorities. Consequently, the proposed harmonization framework requires empirical validation before implementation. Future research should therefore employ socio-legal and mixed-methods approaches to examine how existing regulations are applied in hospitals and civil registration services, assess stakeholder perspectives on deferred sex assignment and surgical decision-making, and evaluate the feasibility of integrating MDT recommendations into Indonesian legal procedures. Comparative research with jurisdictions that provide specific legal safeguards for intersex and DSD children would also strengthen the development of a responsive and rights-based Indonesian regulatory framework.

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Acknowledgment
We gratefully acknowledge the contributions of individuals who supported the completion of this article.

Funding Information
This research did not receive any funding.

Conflict of Interest Statement
The authors declare that there is no conflict of interest.

Ethical Approval and Originality Statement
Ethical approval was obtained for this study. The manuscript represents original work and has not been previously published, nor is it under consideration by another journal.

Data Disclosure Statement
The data that support the findings of this study are available from the corresponding author upon reasonable request.