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Concussion and Athlete Safety: The Legal Responsibility of Clubs and Sports Federations for Preventable Head Injuries in Indonesia

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Abstract

Concussions and other head injuries present serious risks to athletes, particularly where return-to-play decisions are influenced by competitive pressure. Sports clubs and federations have a responsibility to establish reasonable systems for preventing, identifying, and managing such injuries. This article examines the legal responsibility of Indonesian sports organizations for preventable head injuries suffered by athletes. Employing normative juridical research, the study analyzes duty of care, sports safety standards, medical responsibility, organizational liability, and athlete protection principles. The study argues that liability should not depend exclusively on whether an individual medical professional committed negligence. Clubs and federations may also bear responsibility where they fail to establish appropriate concussion protocols, provide qualified medical personnel, adequately train coaches, or prevent premature return to competition. The article proposes a systems-based duty-of-care framework encompassing prevention, immediate assessment, removal from play, medical clearance, monitoring, and long-term follow-up. Contractual provisions that pressure athletes to compete despite medical restrictions should not eliminate institutional responsibility. Establishing clearer legal duties would encourage sports organizations to treat concussion management as a governance obligation rather than merely a medical matter. Such a framework is essential to protect athlete health while creating clearer standards for determining organizational responsibility when preventable head injuries occur.

[*Gegar otak dan cedera kepala lainnya menimbulkan risiko serius bagi atlet, terutama jika keputusan untuk kembali bermain dipengaruhi oleh tekanan kompetitif. Klub dan federasi olahraga memiliki tanggung jawab untuk menetapkan sistem yang wajar untuk mencegah, mengidentifikasi, dan mengelola cedera tersebut. Artikel ini mengkaji tanggung jawab hukum organisasi olahraga Indonesia atas cedera kepala yang dapat dicegah yang diderita oleh atlet. Dengan menggunakan penelitian yuridis normatif, studi ini menganalisis kewajiban untuk berhati-hati, standar keselamatan olahraga,*

tanggung jawab medis, tanggung jawab organisasi, dan prinsip-prinsip perlindungan atlet. Studi ini berpendapat bahwa tanggung jawab tidak boleh bergantung secara eksklusif pada apakah seorang profesional medis melakukan kelalaian. Klub dan federasi juga dapat bertanggung jawab jika mereka gagal menetapkan protokol gegar otak yang tepat, menyediakan personel medis yang berkualitas, melatih pelatih secara memadai, atau mencegah kembalinya atlet ke kompetisi sebelum waktunya. Artikel ini mengusulkan kerangka kerja kewajiban untuk berhati-hati berbasis sistem yang mencakup pencegahan, penilaian segera, penghentian bermain, izin medis, pemantauan, dan tindak lanjut jangka panjang. Ketentuan kontrak yang menekan atlet untuk berkompetisi meskipun ada batasan medis tidak boleh menghilangkan tanggung jawab institusional. Menetapkan kewajiban hukum yang lebih jelas akan mendorong organisasi olahraga untuk memperlakukan penanganan gegar otak sebagai kewajiban tata kelola, bukan hanya masalah medis. Kerangka kerja seperti itu sangat penting untuk melindungi kesehatan atlet sekaligus menciptakan standar yang lebih jelas untuk menentukan tanggung jawab organisasi ketika cedera kepala yang dapat dicegah terjadi.]

Keywords: Concussion, athlete safety, duty of care, sports liability, sports medicine

Introduction

Concussion has become one of the most significant athlete-safety concerns in modern professional sport because its consequences may extend beyond the immediate period of competition. A concussion is a form of mild traumatic brain injury that may produce cognitive, physical, emotional, and neurological symptoms, while repeated or inadequately managed injuries may create more serious consequences. Scientific consensus has progressively strengthened the expectation that suspected concussion should result in immediate assessment and appropriate restriction from further participation. The 2017 Berlin Consensus and the 2023 Amsterdam Consensus both emphasize structured recognition, clinical assessment, graduated return-to-sport processes, and individualized medical judgment (McCrory et al. 2017; Patricios et al. 2023). The Amsterdam process additionally incorporates athlete perspectives, medical ethics, and concerns regarding potential long-term consequences (Schneider et al. 2023). These developments are legally significant because contemporary medical knowledge increasingly defines foreseeable risks that sports institutions can reasonably be expected to manage.

The legal significance of concussion arises from the transformation of professional sport into an organized economic and institutional activity. Athletes do not compete in an uncontrolled environment; they perform within clubs,

leagues, federations, training systems, medical teams, competition rules, and contractual relationships. Those institutions determine training schedules, medical staffing, competition participation, equipment standards, injury reporting, and return-to-play procedures. Consequently, a head injury should not automatically be conceptualized as an unavoidable consequence of sport. Some injuries are inherent risks of particular sports, but others may become legally significant because an organization failed to implement reasonable precautions. The central question is therefore not whether sport involves physical danger, but whether the organization fulfilled the duty reasonably expected of it in light of the known risks, available preventive measures, and professional standards. This distinction is consistent with contemporary tort theory, under which liability depends upon the existence and breach of a legally relevant duty rather than the mere occurrence of injury (Dobbs, Hayden, and Bublick 2016).

The Indonesian regulatory framework provides several legal foundations for analyzing this responsibility. Article 28H of the 1945 Constitution recognizes the right of every person to obtain health services, while Article 28G protects personal security and dignity. These constitutional guarantees acquire particular relevance when an athlete's health is placed at risk by an institution exercising substantial control over professional participation. Law No. 17 of 2023 concerning Health provides the contemporary statutory framework governing health services, professional responsibility, and patient protection, while Government Regulation No. 28 of 2024 provides its implementing framework. The Ministry of Health confirms that Government Regulation No. 28 of 2024 implements Law No. 17 of 2023 and replaced a number of earlier health-related regulations. The legal analysis must therefore connect sports-specific obligations with the general legal principles governing health, safety, professional standards, and institutional responsibility.

Sports legislation provides another relevant foundation. Law No. 11 of 2022 concerning Sports recognizes sport as an organized national activity involving athletes, clubs, federations, and other sporting institutions. Although Indonesian sports legislation does not establish a detailed statutory concussion code equivalent to some specialized international protocols, its broader commitment to athlete development and protection should not be interpreted as permitting institutions to disregard foreseeable medical risks. A sports organization that controls access to competition possesses organizational power capable of affecting an athlete's income, career, selection status, and reputation. That power strengthens the normative basis for imposing a duty of care. The absence of a highly detailed statutory concussion provision should therefore not be understood as the absence of legal responsibility. Instead, general principles of health protection, occupational safety, contractual good faith, tort liability, and professional standards may operate together to establish the required standard of conduct.

Previous studies have largely approached concussion through medical rather than legal perspectives. McCrory et al. established progressively refined international protocols for the recognition and management of sport-related

concussion, while Manley et al. examined the potential long-term effects of repeated sport-related concussion and emphasized the continuing uncertainty surrounding chronic neurological outcomes (McCrory et al. 2017; Manley et al. 2017). Langdon et al. further demonstrated that sport-related concussion is not a single uniform clinical phenomenon but involves different symptom profiles and subtypes (Langdon et al. 2020). Female athletes may also experience concussion patterns requiring particular attention, demonstrating the importance of individualized medical assessment (McGroarty, Brown, and Mulcahey 2020). These medical studies establish foreseeability and risk but do not fully answer the separate legal question of when a club or federation should bear institutional liability for failing to manage those risks.

Legal scholarship concerning sports injuries has similarly identified the importance of duty, standard of care, causation, and institutional responsibility. Malhotra emphasizes that return-to-play decisions following concussion have direct legal implications because failure to recognize persistent symptoms may result in premature participation and additional harm (Malhotra 2014). The National Athletic Trainers' Association likewise identifies duty, breach, causation, and actual harm as core elements in negligence claims involving concussion management (Broglio et al. 2014). Nevertheless, these discussions frequently concentrate on the conduct of individual medical professionals. The more difficult issue is whether responsibility should also extend to clubs and federations when injury results from systemic deficiencies, such as inadequate protocols, insufficient medical staffing, poor coach education, or organizational pressure to return athletes to competition.

Indonesian legal scholarship offers useful conceptual support for such an institutional approach. Andrian and Susila's study of occupational safety and health protection demonstrates that organizations have affirmative responsibilities to protect persons working within high-risk environments, rather than merely responding after an injury occurs (Andrian and Susila 2023). Similarly, Indonesian health-law scholarship has emphasized that health protection involves legal accountability and institutional structures rather than only individual medical negligence. Mohd et al. characterize the right to health as requiring enforceable legal safeguards and institutional accountability, while Raziq and Rahmat demonstrate that healthcare access and institutional capacity influence substantive health protection in Indonesia (Mohd et al. 2025; Raziq and Rahmat 2024). These arguments can be extended into professional sport, where clubs and federations frequently determine the institutional conditions under which athletes receive medical protection.

The present article employs normative juridical research through statutory, conceptual, and comparative approaches. The statutory approach examines Indonesian constitutional provisions, sports legislation, health legislation, employment-related safety provisions, contractual law, and social-security regulation. The conceptual approach applies the doctrines of duty of care,

negligence, vicarious liability, organizational responsibility, informed consent, professional standards, and proportionality. The comparative approach uses international concussion consensus statements and sports-law scholarship to identify standards that may assist Indonesian legal interpretation. The analysis does not treat international medical protocols as automatically binding Indonesian law. Rather, they are used as evidence of contemporary professional knowledge against which foreseeability and reasonable institutional conduct may be assessed. This distinction is essential because a medical consensus statement may establish what responsible sports medicine ordinarily requires without itself creating a statutory cause of action.

The article's contribution lies in reconceptualizing concussion liability as a systems-based duty of care rather than a purely individual malpractice question. This approach distinguishes three levels of responsibility: the medical professional's clinical responsibility, the club's organizational responsibility, and the federation's regulatory and governance responsibility. The article argues that these responsibilities may coexist without automatically imposing strict liability for every injury. A club should not become liable merely because an athlete suffers concussion during lawful competition. Liability becomes stronger where the organization knew or reasonably should have known of a substantial risk and nevertheless failed to implement reasonable prevention, recognition, removal, treatment, or return-to-play procedures. This framework provides a legally balanced approach that protects athletes without eliminating the inherent-risk principle of competitive sport.

Concussion as a Legally Foreseeable Risk and the Emergence of a Duty of Care

The first legal issue is whether concussion should be treated as a foreseeable risk capable of generating a duty of care. In negligence law, foreseeability does not require the defendant to predict the exact circumstances of an injury. It generally requires recognition that the type of harm was sufficiently foreseeable to justify preventive action. Modern concussion science makes it increasingly difficult for professional sports institutions to characterize serious head injury as entirely unexpected. The existence of internationally recognized concussion protocols, specialized assessment tools, medical literature, and return-to-play procedures demonstrates that sports organizations possess access to knowledge concerning the risks and appropriate responses. The 2023 Amsterdam Consensus expressly provides evidence-informed principles for the detection, assessment, management, and prevention of sport-related concussion (Patricios et al. 2023). Thus, foreseeability should be evaluated according to contemporary professional knowledge rather than historical assumptions about sporting risk.

The existence of an inherent risk does not automatically eliminate institutional responsibility. Athletes voluntarily participate in sports knowing that physical

contact and injury may occur, but consent to inherent sporting risks should not be interpreted as consent to organizational negligence. The distinction is analogous to medical and occupational contexts, where a person may accept ordinary risks without consenting to unreasonable departures from professional standards. Prosser and Keeton explain that assumption of risk traditionally concerns knowledge and voluntary acceptance of a particular risk, but it does not necessarily excuse conduct that exceeds the ordinary risks of the activity (Prosser et al. 1984). In professional sport, the athlete's consent to competition therefore cannot reasonably extend to an institution's failure to provide basic concussion assessment, ignoring obvious symptoms, or deliberately circumventing medical restrictions. The contractual environment reinforces this conclusion because an athlete's dependence on club selection and remuneration may make apparent consent substantially constrained.

Indonesian employment law provides a further analogy. Article 86 of Law No. 13 of 2003 concerning Manpower recognizes workers' rights to occupational safety and health, while Article 87 requires enterprises to implement integrated occupational safety and health management systems. Although the application of employment law to every professional athlete may depend upon the legal structure of the relationship, these provisions express an important normative principle: productivity cannot legitimately be separated from safety. Andrian and Susila's analysis of occupational safety similarly demonstrates that institutional responsibility involves preventive systems rather than merely compensation after harm has occurred (Andrian and Susila 2023). Where a professional athlete is legally characterized as an employee, the relevance of occupational safety obligations becomes particularly strong.

Even where an athlete is not formally classified as an employee, contractual and tort principles may independently support a duty of care. A club exercising control over an athlete's training, medical access, competition participation, and professional development occupies a relationship capable of generating obligations beyond the literal text of the contract. Article 1338 of the Indonesian Civil Code requires agreements to be performed in good faith, while Article 1365 establishes the general principle of liability for unlawful acts causing damage. Article 1366 extends responsibility to negligence and lack of care, while Article 1367 addresses responsibility associated with persons under another's supervision. These provisions create a legal architecture through which institutional conduct can be evaluated even where no specialized sports-safety statute directly addresses concussion.

The duty of care should also be informed by the health-law relationship between athletes and medical professionals. Law No. 17 of 2023 concerning Health emphasizes professional standards, patient protection, and the regulation of healthcare services. Health services provided within a club are not transformed into ordinary commercial services merely because the patient is an athlete. The athlete remains a rights-bearing person entitled to medically appropriate treatment. Indonesian scholarship concerning health services has similarly emphasized that

negligence and institutional responsibility should be analyzed through professional standards and legal duties rather than through the mere occurrence of an adverse medical outcome. Al Fikri and Najicha, for example, argue that medical liability in Indonesia requires careful differentiation between professional obligations and the legal consequences of negligence (Al Fikri and Najicha 2022).

The Club's Organizational Responsibility for Preventable Head Injuries

A club's responsibility should extend beyond the conduct of its doctor because concussion management is an organizational process. The medical professional may identify an injury, but the club determines whether an appropriate medical professional is present, whether the athlete can be removed from competition, whether coaches receive sufficient education, whether medical recommendations are respected, and whether the athlete can return safely. The National Athletic Trainers' Association identifies failures in evaluation, documentation, communication, and education as potential bases for negligence claims (Broglio et al. 2014). These failures often involve more than individual clinical judgment. A club that creates an environment in which medical personnel lack authority to remove athletes from play may contribute materially to the resulting harm.

This systems-based analysis is consistent with contemporary organizational liability theory. Institutional negligence may arise where an organization fails to establish appropriate policies, fails to supervise employees, or creates conditions in which foreseeable harm becomes more likely. The legal question is therefore not simply whether a doctor made a clinical mistake but whether the club constructed a reasonable safety system. This principle can be analogized to corporate accountability scholarship in Indonesia. Utari, Wulandari, and Arifin emphasize that organizational accountability can be undermined when legal systems focus excessively on individual conduct while overlooking structural decision-making and institutional deficiencies (Utari, Wulandari, and Arifin 2024). Although their study concerns corporate crime rather than sports injuries, the conceptual lesson is relevant: institutional responsibility requires examination of organizational structures through which harmful conduct becomes possible.

The club should therefore have at least a basic concussion-management system. Such a system should include pre-season education, qualified medical personnel, a clear recognition protocol, immediate removal from play when concussion is suspected, access to appropriate clinical assessment, documentation of the injury, a graduated return-to-sport process, and monitoring after return. The CRT6 and SCAT6 developed through the Amsterdam consensus provide examples of standardized tools capable of supporting recognition and assessment (Echemendia et al. 2023). Their legal relevance lies not in their automatic status as binding law but in their evidentiary value concerning reasonable professional

practice. A club that entirely disregards internationally recognized tools may need to explain why its alternative system is equally capable of protecting athletes.

The removal-from-play principle is especially important. The CDC's sports guidance, based upon the international concussion guidelines, recommends immediate removal from participation when concussion is suspected and prohibits same-day return to sport until appropriate medical clearance is obtained. Although CDC guidance is not Indonesian law, it illustrates an internationally accepted safety principle. The Amsterdam Consensus likewise treats return-to-sport as a staged clinical process rather than a simple administrative decision (Patricios et al. 2023). In legal terms, a club that allows an athlete with recognized concussion symptoms to continue competing may expose itself to stronger allegations of breach because the risk and preventive response are both increasingly well established.

The economic structure of professional sport makes institutional responsibility particularly important. Athletes may be reluctant to report symptoms because injury can threaten selection, remuneration, contract renewal, sponsorship, or reputation. A formal right to refuse unsafe participation may therefore be ineffective if the athlete reasonably fears retaliation. The club must create an environment in which medical restrictions can be implemented without penalizing the athlete. This principle is consistent with the broader understanding of health justice developed by Indonesian scholarship, which emphasizes that rights require enforceable institutional safeguards rather than merely formal recognition. Dewi and Bahri argue that health justice depends upon accountability mechanisms capable of protecting vulnerable persons against structural weaknesses in healthcare institutions (Dewi and Bahri 2025). Professional athletes may be economically powerful in some circumstances, but their dependence upon clubs can make them vulnerable when refusing to compete.

Documentation is another important component of institutional responsibility. Every suspected concussion should be recorded with sufficient information concerning the mechanism of injury, symptoms, medical assessment, removal from play, treatment, and clearance decision. Documentation serves both medical continuity and legal accountability. Without adequate records, it becomes difficult to determine whether an institution acted reasonably. The evidentiary significance of medical documentation has been recognized in Indonesian health-law scholarship, particularly because unequal access to medical information can undermine a claimant's ability to prove negligence. The legal system should therefore consider whether clubs maintain adequate injury records and whether athletes can access records concerning their own medical treatment.

The relationship between club and athlete also raises the issue of contractual exclusion clauses. A club may attempt to insert provisions stating that the athlete assumes all risks associated with competition or waives claims arising from injury. Such clauses should not automatically eliminate institutional liability. JILS scholarship on contractual clauses limiting tort liability demonstrates that freedom of contract is not absolute where contractual provisions seek to exclude or restrict

responsibility for underlying unlawful conduct or mandatory obligations (Mallet and Nassar 2025). In the concussion context, a contractual waiver should not protect a club from responsibility for deliberately ignoring medical restrictions, failing to maintain reasonable safety systems, or pressuring an athlete to participate contrary to established medical advice.

Federation Responsibility and the Governance Dimension of Athlete Safety

Federations occupy a different legal position from clubs because their responsibility generally arises from rule-making, licensing, competition organization, supervision, and governance rather than direct daily control over individual athletes. Nevertheless, federations may possess significant capacity to prevent concussion-related harm. They determine competition regulations, medical requirements, disciplinary rules, licensing standards, referee procedures, and minimum organizational conditions. Where a federation organizes professional competitions without adequate injury protocols despite widespread knowledge of concussion risks, its regulatory omission may become relevant to questions of institutional responsibility. The appropriate legal standard should not impose automatic liability for every injury but should require federations to establish reasonable minimum safety standards consistent with contemporary sports medicine.

The concept of regulatory responsibility is supported by the distinction between individual and institutional accountability. A federation may not have personally caused the physical impact that injured an athlete, yet its failure to regulate known safety risks may contribute to the conditions in which preventable injuries occur. The Amsterdam Consensus emphasizes that concussion management requires coordinated systems involving healthcare professionals, athletes, coaches, and sporting organizations (Patricios et al. 2023). A federation should therefore not regard concussion solely as a private medical matter between an athlete and club. It is also a governance issue because the federation controls the regulatory environment in which clubs operate.

Federation rules should establish minimum medical standards as a condition of competition participation. These standards could require clubs to provide appropriately qualified medical personnel, establish emergency procedures, maintain concussion records, educate coaches and officials, and implement return-to-play protocols. The federation could also conduct compliance audits and impose sanctions for systematic non-compliance. This approach reflects the principle of preventive regulation found in health law. Indonesian health-justice scholarship repeatedly emphasizes that effective protection requires institutional supervision, enforceable standards, and mechanisms capable of identifying structural weaknesses. Mohd et al. argue that the right to health requires more than formal recognition and depends upon institutional accountability and effective enforcement (Mohd et al. 2025). The same reasoning is applicable to athlete safety.

The federation's role becomes particularly important where clubs have unequal financial resources. Wealthier clubs may be capable of employing neurologists, sports physicians, physiotherapists, and advanced diagnostic services, while smaller clubs may have limited medical infrastructure. A purely club-based duty of care could therefore generate significant disparities in athlete protection. Federation-wide minimum standards can establish a common floor of safety. The federation need not require identical medical resources at every level, but it should ensure that no professional competition operates below an objectively defensible minimum. This would also prevent competitive incentives from encouraging clubs to reduce medical spending to gain short-term economic advantages.

Federations should also establish independent medical authority. Medical professionals responsible for athlete safety should be able to remove athletes from competition without interference from coaches, club executives, sponsors, or federation officials. Such independence is essential because concussion decisions may directly conflict with competitive interests. If a doctor fears dismissal for repeatedly excluding key athletes from matches, the nominal existence of a medical protocol may become meaningless. The legal standard should therefore examine not only whether a written protocol exists but whether the institutional structure permits medical personnel to apply it independently. Formal compliance without functional independence should not automatically satisfy the duty of care.

The federation should additionally create reporting and review mechanisms. Serious concussion incidents should be capable of review by an independent medical or regulatory committee, particularly where questions arise concerning premature return to play or repeated exposure. Such review would serve both accountability and learning functions. It would also assist in identifying systemic patterns rather than treating every injury as an isolated event. The broader principle is consistent with Indonesian legal scholarship emphasizing procedural accountability. Advocacy and regulatory scholarship published in the *Indonesian Journal of Advocacy and Legal Services* demonstrates that formal regulation is insufficient when monitoring, education, and enforcement mechanisms are weak (Fikri et al. 2025). In sport, concussion protocols similarly require education, monitoring, and enforcement to become effective.

Federation responsibility should nevertheless remain proportionate. Not every deviation from an international guideline should create civil liability. International consensus statements are evidence-informed clinical standards, but medicine necessarily involves professional judgment and uncertainty. The Amsterdam Consensus itself acknowledges continuing research questions concerning long-term effects and the need for individualized decisions (Patricios et al. 2023). Legal liability should therefore focus on unreasonable departures from applicable professional and organizational standards. A federation should not be held liable merely because an athlete suffers an adverse medical outcome despite compliance with reasonable safety procedures. The legal objective is prevention of avoidable harm, not creation of strict liability for unavoidable sporting injuries.

Causation, Compensation, and a Proposed Indonesian Framework

Causation presents one of the most difficult legal issues in concussion litigation because symptoms may emerge gradually and long-term neurological outcomes may have multiple causes. A claimant generally must establish that the defendant's breach contributed sufficiently to the injury for legal responsibility to arise. This is more complicated where an athlete had previous concussions, continued playing after an initial injury, or develops symptoms years later. Manley et al. caution that evidence concerning long-term consequences remains scientifically complex and requires careful interpretation (Manley et al. 2017). Consequently, Indonesian courts should avoid both extremes: denying liability because concussion causation is medically complex, or assuming causation merely because a subsequent neurological condition followed a sporting career.

A distinction should be made between initial injury causation and aggravation causation. A club may not have caused the first concussion, but it may nevertheless contribute to additional harm by allowing an athlete to return prematurely. This distinction is legally important because a defendant should not escape responsibility simply because an initial injury occurred through ordinary sporting contact. If the club's subsequent conduct aggravated the injury or materially increased the risk of additional harm, liability may arise for the incremental damage. Malhotra's analysis of return-to-play liability is particularly relevant because premature return may expose athletes to further injury while the brain remains in a vulnerable recovery period (Malhotra 2014).

Medical evidence should consequently play a central role in establishing causation. Courts should consider the timing of symptoms, medical records, clinical findings, prior injury history, expert testimony, and the organization's conduct after the initial injury. The legal system should also recognize the evidentiary significance of institutional records. If a club fails to document an injury despite having an established obligation to do so, that failure should not automatically establish liability but may affect the assessment of evidentiary credibility. The principle is consistent with broader Indonesian discussions concerning equality of access to evidence in health-related disputes. Legal protection becomes ineffective if injured persons cannot reasonably obtain information necessary to establish professional or institutional responsibility.

Compensation should correspond to the actual legal consequences of the injury. Depending upon the circumstances, damages may encompass medical costs, rehabilitation expenses, lost income, future earning capacity, and other legally recognized losses. For professional athletes, career-related loss deserves particular attention because an injury may shorten a career whose economic value is concentrated within a relatively brief period. A concussion that prevents an athlete from participating in a major competition or terminates a professional career may have consequences beyond ordinary temporary wage loss. The assessment should nevertheless remain evidence-based and should distinguish foreseeable

economic loss from speculative future earnings. Contractual insurance and social-security coverage should also be considered but should not automatically extinguish the club's responsibility where independent negligence has caused compensable harm.

Social security provides an additional layer of athlete protection. Law No. 40 of 2004 concerning the National Social Security System establishes the national framework for social protection, while Law No. 24 of 2011 concerning the Social Security Agency provides the institutional basis for BPJS administration. The relevance to professional athletes depends upon their employment and registration status, but sports organizations should ensure that athletes have appropriate coverage for occupational or sporting injuries. Social insurance should function as a protection mechanism rather than as a substitute for institutional safety. A club should not argue that because an athlete has insurance, the club has no responsibility for negligent conduct. Insurance addresses financial consequences; duty of care addresses prevention and accountability.

A particularly important reform would be to establish a statutory or regulatory presumption concerning basic concussion procedures. Where a professional club or federation has no reasonable protocol despite participating in a sport with foreseeable head-injury risks, the absence of such a system should constitute significant evidence of breach. Conversely, an organization that demonstrates compliance with an officially recognized concussion-safety standard should receive evidentiary protection, although compliance should not provide absolute immunity. This would encourage preventive behavior without creating strict liability. It would also provide courts with an objective benchmark for assessing reasonableness in disputes involving medically complex injuries.

The framework should further protect medical independence. Clubs and federations should be prohibited from disciplining or financially penalizing medical personnel solely because they remove athletes from competition for legitimate medical reasons. Similarly, athletes should be protected against retaliation for reporting concussion symptoms or following medical restrictions. This is particularly important because the economic structure of professional sport can transform medical decisions into employment and contractual disputes. An athlete who refuses to play because of a medically supported restriction should not automatically be considered in breach of contract. The principle of good faith requires contractual performance to be reconciled with legitimate health limitations, especially where continued performance creates a foreseeable risk of serious harm.

Finally, Indonesia should consider developing a national sports-concussion regulation or binding federation standard based on contemporary evidence-informed protocols. The framework should establish minimum duties concerning prevention, education, recognition, immediate removal, clinical assessment, medical clearance, graduated return to sport, documentation, insurance, follow-up, and independent review. Such regulation would not replace the general law of

negligence, contract, employment, or health services. Instead, it would operationalize those general legal principles within the specific institutional environment of professional sport. The resulting framework would make liability more predictable because clubs, federations, medical professionals, athletes, and courts would have clearer benchmarks for determining reasonable conduct.

The proposed model is therefore neither a strict-liability regime nor a purely contractual model. It is a risk-based institutional responsibility framework. Liability should arise where an organization knew or reasonably should have known of a material concussion risk, possessed reasonable means of reducing that risk, failed to implement those measures, and contributed causally to the athlete's injury or aggravated condition. The model respects the inherent-risk character of sport while rejecting the proposition that competitive participation constitutes a waiver of basic safety protections. This approach is consistent with the broader Indonesian movement toward accountable institutional governance reflected in health, labor, and legal scholarship. Wiraatma and Anggraini's analysis of labor rights, for example, demonstrates the continuing tension between organizational flexibility and effective protection of persons operating within economically dependent relationships (Wiraatma and Anggraini 2025). Professional sport should be governed by the same fundamental principle: institutional autonomy cannot be separated from institutional responsibility.

Conclusion

Concussion in professional sport should no longer be understood exclusively as an unavoidable consequence of athletic competition or as a matter of individual medical negligence. Contemporary scientific knowledge establishes that concussion is a foreseeable risk requiring structured prevention, recognition, assessment, removal from play, and graduated return-to-sport procedures. This development has direct legal implications for Indonesian clubs and sports federations. The existence of an inherent sporting risk does not eliminate the duty to take reasonable precautions against preventable harm. Indonesian constitutional provisions concerning health and personal security, sports legislation, health law, employment safety principles, contractual good faith, and unlawful-act liability collectively provide a sufficient normative foundation for recognizing institutional duties even in the absence of a highly specific statutory concussion regime. The central legal inquiry should therefore focus on whether the organization adopted and effectively implemented reasonable safety systems consistent with contemporary professional knowledge.

A sustainable Indonesian framework should distinguish among medical, club, and federation responsibilities while recognizing that these responsibilities can overlap. Clubs should provide competent medical personnel, effective concussion protocols, independent medical decision-making, adequate documentation, and protection against premature return to competition. Federations should establish

minimum safety standards, supervise compliance, educate sporting personnel, and provide independent review mechanisms. Liability should remain fault- and causation-sensitive rather than becoming automatic whenever an athlete suffers a head injury. Nevertheless, contractual waivers, competitive pressure, or the inherent-risk character of sport should not shield organizations from responsibility for unreasonable failures in athlete protection. A systems-based duty of care would therefore offer a balanced legal solution: it would preserve sporting autonomy and legitimate competition while affirming that professional athletes remain rights-bearing persons whose health and dignity cannot be subordinated to competitive or commercial objectives.

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