Journal of Social Science Studies Vol. 4, No. 1, January 2024, pages 391 – 406

Consent and Reporting of Periodic Screening of Workers Exposed to Chemicals in Factories

Devy Natalia Mathius, Yeni Vitrianingsih, Rahayu Mardikaningsih

Universitas Sunan Giri Surabaya, Indonesia

ARTICLE INFO

Article history:
Received 12 December 2023
Revised 11 January 2024
Accepted 19 February 2024

Key words:
Health screening,
Consent to treatment,
Medical confidentiality,
K3 reporting,
Personal data,
Chemical exposure,
Medical records.

ABSTRACT

This article explores the legal aspects of periodic health screening for factory workers exposed to chemicals, focusing on consent for medical treatment and reporting governance. Utilizing a normative juridical method, the study reviews health legislation, medical practice, occupational safety, labour laws, and personal data protection, analysing the relationships between doctors, workers, and employers. The findings indicate that valid consent must be free, specific, informed, and documented, in accordance with Health Law 17/2023 and related regulations. Effective implementation requires anti-retaliation policies, clear communication, and separation of access between occupational safety and human resources units. In terms of reporting, companies must disclose information to improve working conditions while adhering to medical confidentiality and personal data protection laws. This research proposes a governance model for managing medical records that includes concise reporting formats and security protocols. Compliance with legal standards for periodic screening necessitates written SOPs, privacy training, and mechanisms for objections and reviews, thereby enhancing worker health protection and fulfilling employer obligations without compromising privacy rights. Practical implications involve creating consent forms for various examinations, identifying report recipients, and employing pseudonymization in data analysis. Companies should establish appropriate retention periods for records and ensure controlled destruction. Doctors are encouraged to communicate results clearly to workers, provide understandable explanations, and document refusals without negative labelling. For serious findings, prompt communication while protecting identities is crucial. This framework emphasizes prevention and fosters trust, ensuring voluntary participation in health screenings by workers.

INTRODUCTION

The implementation of periodic health screening for factory workers exposed to chemicals lies at the intersection of occupational safety and health obligations, workers' rights to fair treatment, and medical ethics and law. In industrial workplaces, periodic health examinations are often understood as technical procedures to assess fitness for work and detect health changes early on. The practice, however, generates highly personal health data, raising questions about the basis for consent, the limits of companies' use of examination results, and reporting routes to authorities. This intersection is crucial, as the protection of patient rights is a cornerstone of both law and medical ethics in Indonesia (Herisasono et al., 2023). When screening is routinely conducted on a population of workers in hierarchical employment relationships, consent cannot be viewed as a mere administrative formality. Informed consent, in particular, stands as a fundamental patient right that must be upheld from legal and ethical standpoints (Chairul et al., 2023). Consent needs to be understood as a statement of free will, after adequate information has been provided, and without any hidden pressure rooted in dependence on employment, performance appraisals, or the threat of transfer or termination (Damman et al., 2015). This principle relates to the broader concept of patient autonomy, which can conflict with paternalistic practices in healthcare and raise questions of legal liability (Feriadi et al., 2023). At this point, the legal aspect determines the quality of periodic examination governance because it directs who is authorized to examine, how information

** Corresponding author, email address:* ***rahayumardikaningsih@gmail.com***

procedures are provided, what may be recorded, and who may receive a summary of the results.

Chemical exposure in factory environments presents unique risk characteristics because its effects can be acute or chronic, sometimes latent, and cumulative (Horie, 2004). Some types of chemicals cause mild symptoms that are easily overlooked, while others can cause organ damage that can only be detected through laboratory tests or specific organ function assessments. Therefore, periodic health screening has transformed into an instrument with a dual function: on the one hand, as a means of protecting workers through early detection and prevention efforts, and on the other hand, as a protection mechanism for employers through formal documentation of compliance with Occupational Health and Safety (OHS) obligations. This dual function has the potential to create significant conflicts of interest if not managed and controlled by clear and strict legal guidelines and governance.

Furthermore, the ecosystem in which this screening policy is implemented cannot be separated from the overall work environment. A comprehensive work environment, which includes aspects of leadership quality and physical conditions in the workplace, has long been recognized as a determining factor that influences worker satisfaction and well-being (Radjawane & Darmawan, 2022). In this context, the development of a strong OSH culture is not only a supporting element, but also a prerequisite and critical contributor to mitigating the risk of chemical exposure and forming the foundation for sustainable operational performance (Djaelani et al., 2021). Company doctors or occupational health service providers are often in a vulnerable position, facing a tug-of-war between the pressure to deliver results that are in line with the company's operational interests and their professional responsibility to provide health services that are oriented towards worker safety. It is at this complex intersection that governance regarding informed consent, confidentiality of information, and reporting mechanisms become key elements that determine the legitimacy and fairness of the screening programmed itself. Without the implementation of a careful and integrity-based legal framework, periodic health examinations run a high risk of functional distortion, from being a protective tool to becoming a tool for selecting and discriminating against workers based on their health conditions.

In the health law system, informed consent for medical procedures is a fundamental and ethical prerequisite that cannot be compromised, as it is directly related to respect for human dignity and the principle of individual autonomy over one's own body (Jafar, 2020). Consent in the context of periodic health screening for workers faces complex and specific challenges. This is due to the nature of its implementation, which is often carried out in groups (mass screening), following standard protocols, within a limited time frame, and packaged in the narrative of "company obligations" or occupational health and safety programmed that can obscure workers' rights to refuse. To be legally and ethically meaningful, the information that must be provided before the examination must be complete and clear, covering the purpose of the screening, the type and procedure of the examination, the expected benefits, the possible risks, potential incidental findings, the administrative implications for employment status, and a comprehensive explanation of how the confidentiality of their health data will be protected.

Furthermore, the validity of consent does not only depend on the completeness of information, but also on two other crucial pillars: the legal competence or capability of the consenting party, and true freedom from any form of pressure, coercion, or manipulation. In the dynamics of working relationships, this pillar of freedom requires extra consideration and protection. This is due to the inherent power imbalance between workers and employers, where workers are often in a vulnerable and dependent position. This imbalance not only has the potential to create a stressful work environment, which according to research is correlated with a decline in managerial performance (Darmawan & Djaelani, 2021), but can also significantly erode workers' psychological capacity to make truly autonomous and free decisions. The challenge becomes even greater when screening includes highly sensitive examinations, such as chemical exposure biomarker tests, radiological examinations, or mental health assessments. Such examinations not only produce highly personal data, but also carry the risk of stigma, labelling, and fitness-to-work assessments, the impact of which can be directly felt in workers' livelihoods. Therefore, the process of obtaining consent for these specific examinations requires an even higher level of clarity, transparency, and confidentiality guarantees

In addition to consent, reporting is a legal issue directly related to public safety and the prevention of occupational diseases. In the field of occupational safety and health, reporting may include internal company records, reporting of occupational diseases or suspected occupational diseases, and notification to labor or health authorities in accordance with

regulations (Salhah et al., 2013). Reporting should not override the obligation of medical confidentiality and protection of workers' personal data. A careful reading of the hierarchy of norms, starting from laws, government regulations, ministerial regulations, to technical standards, is necessary to ensure that reporting is carried out through the correct channels, with proportional information limits. Unclear reporting limits can give rise to two equally serious risks: excessive reporting that violates confidentiality, or absent reporting that hinders OSH prevention and enforcement. In practice, companies often operate across regions, use clinic vendors, and utilize occupational health information systems, making the accountability of data controllers and data processors increasingly important.

A normative review is needed to assess the suitability of approval procedures, documentation standards, medical record or occupational health record management, and reporting mechanisms. The focus on factory workers exposed to chemicals highlights the need for strict regulations due to the high health risks and potential long-term effects on workers. The work relationship and production demands may encourage fast-paced procedures that reduce the quality of clinical communication. This paper aims to formulate a structured legal interpretation of who is authorized to conduct screening, how consent is established as a legal action, and how reporting can be done in compliance with regulations without reducing workers' rights to confidentiality and protection from discrimination.

The implementation of periodic health screening for workers exposed to chemicals raises legal issues regarding the validity of consent in employment relationships. Consent to medical procedures is a form of consent to action that essentially requires adequate explanation, understanding, and freedom of choice. In industrial relations, this freedom has the potential to be reduced by economic dependence and concerns about the consequences of employment. This situation raises questions about the limits of "voluntariness" when screening is packaged as a prerequisite for employment, a condition for promotion, or a condition for contract renewal. The next issue is the standard of information that must be conveyed in mass screening, including how to explain the risks of the examination, the probabilistic interpretation of the results, and the potential for findings that are not directly related to occupational exposure. Without clear standards, consent documents can become meaningless formalities, ultimately undermining the legitimacy of medical actions and triggering disputes between workers, companies, and occupational health service providers.

There are issues related to confidentiality and the use of health information in workforce management. Periodic screening generates sensitive data that can be used for job placement, task restrictions, or even termination of employment. From the perspective of health and labor law, the use of such data must be limited to legitimate, proportional purposes and follow procedures that avoid discrimination. The practice in the field, however, often places companies in the position of both financing the examinations and requesting the results. This situation raises questions about who owns and controls the data, who has the right to receive the details, and what form of report is legally acceptable to give to employers. If the examination results are provided in detail without any filtering, medical confidentiality may be violated. If the results are completely hidden from the company, exposure prevention and work adjustment programs may not be implemented. This tension requires a normative reading of the limits of information that may be disclosed, the form of "fit to work" recommendations that are acceptable, and the mechanisms for objection or clarification for workers.

Another issue is the occupational health reporting mechanism, which runs parallel to, but is not identical to, reporting obligations in the public health system and the labor inspection system. Reporting of occupational diseases and incidents related to chemical exposure is necessary for prevention, investigation, and enforcement of compliance. Non-standardized reporting, however, can create legal risks for doctors and companies because it involves the identity of workers, diagnoses, and exposure history. At the normative level, it is necessary to determine the reporting channel, the categories of events that must be reported, the deadline, and who is responsible. At the same time, reporting must adhere to the principle of data minimization and restrict access to authorized parties only. This issue becomes more complicated when companies use third parties, such as partner clinics, laboratories, or information system providers, as compliance obligations may be spread across multiple entities. Without a clear regulatory framework, reporting may not be carried out or may be carried out incorrectly, thereby hindering worker protection.

Discussion of the legal aspects of periodic screening for workers exposed to chemicals is necessary because the practice often evolves faster than understanding of regulatory compliance. Companies pursue process consistency and efficiency, while workers demand assurance that examinations are conducted with full respect for patient rights,

including the right to information, consent, and confidentiality. When screening is carried out as a routine procedure, the risk of "automating" decisions increases, for example, laboratory results are directly translated into work restrictions without proper clinical communication. This has the potential to give rise to labor disputes and health service disputes, especially when workers feel that they never really understand the purpose of the examination or feel that the results are being used for detrimental administrative purposes. A rigorous legal review provides the basis for formulating the limits of lawful action and accountable forms of implementation.

Proper reporting governance is also necessary to ensure that screening findings contribute to prevention, rather than simply becoming archived records. In the industrial sector, exposure to chemicals can give rise to patterns of health problems that only become apparent once data has been collected and analyzed. If reporting to the authorities is not carried out or is not in accordance with regulations, opportunities for intervention at the source of the hazard will be missed. At the company level, incorrect internal reporting can lead to misinterpretation and disproportionate actions against workers, including labeling them as "unfit for work" without complete clinical grounds. By examining the legal aspects, this paper clarifies the obligations of the parties involved, the documentation process, and the limits of information exchange between doctors, companies, and the government, so that screening can be carried out in line with worker protection and regulatory compliance.

This study aims to explain and examine the norms governing consent in periodic health examinations for workers exposed to chemicals. The focus of the study includes an analysis of the construction of valid consent based on the legal framework of health, medical practice, occupational safety and health (OSH), and personal data protection. This objective includes an assessment of the suitability of the consent mechanism with the principles of voluntariness, clarity of information, and specificity of medical actions, which are the main prerequisites for health screening to not merely be an administrative obligation, but to truly reflect respect for the autonomy and rights of workers.

Furthermore, this study also aims to assess the suitability of the reporting mechanism for examination results with the principle of health information confidentiality. This study analyses the reporting restrictions set by various regulations, the balance between the reporting obligation for OSH risk control and the obligation to maintain the confidentiality of sensitive worker data. From a comprehensive analysis of these two aspects consent and confidentiality this study is expected to produce a practical compliance framework. This framework can be used by companies, occupational health service providers, and workers themselves to carry out periodic examinations that are legally valid, audited, and in line with the protection of workers' rights and the fulfilment of OSH obligations.

RESEARCH METHOD

This research uses a normative juridical method with a qualitative literature study design to examine the legal principles governing periodic health screening for factory workers exposed to chemicals, particularly regarding consent for action and reporting. Primary legal materials are positioned as the main source, including relevant legal regulations in the field of occupational safety and health, health law, medical practice, and data protection and confidentiality. Secondary legal materials include academic literature discussing consent to medical treatment, the relationship between doctors, patients, and employers, medical confidentiality, and occupational health reporting governance. Relevant non-legal materials, such as published OSH technical guidelines or internal standards, are treated as supporting materials for understanding the practices and technical terms used in occupational health services, as long as they do not replace the position of positive legal norms.

The literature search strategy was conducted by identifying keywords indicated in the abstracts. Inclusion criteria were established to select sources that were directly relevant to medical consent for periodic examinations, management of worker health data, and reporting mechanisms in the field of occupational health and safety. Exclusion criteria included popular opinion sources, promotional materials, and writings whose publishers could not be traced. The synthesis process was carried out using a thematic approach: regulatory texts and literature were sorted according to the themes of "consent," "confidentiality and access to results," "medical records or occupational health records," and "external and internal reporting," then the relationship between norms was examined based on the principles of regulatory hierarchy, lex specialist, and the protection of the rights of examination subjects.

Coding is carried out through repeated reading to identify the norms governing authority, procedures, prohibitions, and sanctions, then a matrix of conformity between the obligations of doctors, the obligations of employers, and the rights

of workers is compiled. Quality assurance of the analysis is carried out through consistency checks: (a) verification of the validity status of the regulations used, (b) comparison of terms used between regulations to avoid misinterpretation, (c) clear separation between mandatory norms, optional norms, and guideline norms, and (d) explicit recording of interpretive assumptions so that the argument can be audited. The final result is presented as a normative argument that answers the problem formulation, with an emphasis on the limits of consent and reporting obligations, as well as the legal consequences for the parties if the procedures are not fulfilled.

RESULT AND DISCUSSION

Construction of Valid Agreements on Periodic Health Screening for Workers Exposed to Chemicals

Valid consent for periodic health screening of factory workers exposed to chemicals must be established as free, specific, informed, and documented medical consent, and placed within a three-party legal relationship: the doctor as the medical practitioner, the worker as the subject of the examination and patient, and the employer as the party responsible for occupational safety and health (Batlle et al., 2022). The main normative framework in the field of health services stems from Law Number 17 of 2023 concerning Health, which emphasizes the provision of health services based on standards and the protection of patient rights, including the right to obtain accurate information and the right to confidentiality of health data (Permatasari & Alkays, 2023). Violation of these rights, such as through misdiagnosis, can lead to legal liability for medical personnel (Setiyadi et al., 2023). In the field of medical practice, Law Number 29 of 2004 concerning Medical Practice places doctors as a profession bound by professional obligations, service standards, discipline, and ethics, so that worker consent cannot be reduced to administrative company consent. Legal protection for patients against negligence by medical personnel is a crucial aspect of this ethical and professional framework (Lethy et al., 2023). Consent to periodic screening is a legal action in the private sphere that is inherent in medical actions, while the company's K3 obligations fall under public legal and labor legal spheres. A valid construction requires a clear separation: companies can mandate OSH programs, but doctors are required to ensure that any examination involving physical contact, sample collection, or diagnosis is performed only after workers have received adequate explanation and freely consented (Jafar, 2020). Valid consent is thus the meeting point between the obligation to prevent occupational risks and respect for the individual's autonomy over the medical actions they receive.

Ministry of Health Regulation No. 290/Menkes/Per/III/2008 concerning Approval of Medical Procedures provides an operational structure for verbal and written consent, including the information that must be provided prior to the procedure. In periodic screening for chemical exposure, doctors are required to explain the purpose of the examination, the procedures performed, the frequency of screening, the benefits of prevention and early detection, the general risks of the examination, equivalent alternative examinations if available, and the consequences of refusal. The consequences of refusal must be explained proportionally: the focus is on occupational safety risks and control options, not threats of disciplinary action. Participation in medical screening programs is presented as a voluntary decision that should be based on informed choice. We found that citizens did not receive neutral or balanced information about the benefits and risks, but were exposed to manipulative framing effects (Gram et al., 2023). This stands in contrast to emergency contexts where the doctrine of presumed consent or necessity may apply, but such exceptions are invalid for planned, non-emergency procedures like periodic screening (Abdullah et al., 2023). The Ministerial Regulation requires explanations that can be understood, so that consent forms must use clear language, avoid unexplained technical terms, and provide space for questions and answers. In mass screening practices, challenges arise because explanations are often abbreviated; normatively, this should be addressed through scheduled pre-screening procedures, written explanatory materials, and re-explanation sessions prior to invasive procedures such as venipuncture. Valid consent is specific, so general consent for "periodic examinations" does not automatically cover additional examinations that are more invasive or sensitive. Consent documentation must include the identity of the doctor, the service facility, the date and time, the type of examination, and evidence that the worker received an explanation and agreed without pressure.

Ministry of Health Regulation No. 269/Menkes/Per/III/2008 on Medical Records strengthens the dimensions of evidence and accountability of consent. In the worker screening scheme, medical records must document the results of anamnesis, physical examination, supporting examinations, clinical interpretation, follow-up

plans, as well as records of consent and refusal. Medical records are not company archives that can be freely accessed by human resources units. They are health service documents that are subject to the principles of confidentiality, integrity, and access restrictions. The separation of clinical records from employment administration is a normative requirement so that medical information is not misused for non-medical assessments. From a legal perspective, doctors and healthcare facilities are obligated to maintain medical records, while companies are only entitled to receive relevant information for occupational safety in the form of concise work fitness recommendations. If a company finances the service, the financing does not transfer the right of access to individual medical records. This structure protects workers from the risk of stigmatization, labeling, or employment actions based on diagnoses that should remain within the doctor-patient communication. Beyond that, current guidelines assume that confidential patient information can only be legally disclosed with the patient's consent (Taylor & Wilson, 2019). The organization of medical records according to Permenkes 269/2008 is a material condition that makes consent meaningful, because workers know that the information they provide will not be circulated without a legal basis.

Law No. 27 of 2022 concerning Personal Data Protection adds a very decisive layer of obligation, because employee health data is specific personal data that requires strict protection. In periodic screening programs, the data controller is generally the employer for the purpose of fulfilling occupational health and safety obligations, while health facilities and laboratories act as data processors to carry out examination services. In certain situations, joint controllers may occur, especially when health facilities set further clinical objectives and use data for patient services. The law requires lawful processing principles: clear purpose, purpose limitation, data minimization, accuracy, storage limitation, security, and accountability. Normatively, consent for medical actions remains mandatory under the health regime, while the basis for data processing for OSH programs may rely on corporate legal obligations. The PDP Law, however, still requires detailed transparency: workers must be notified of the purpose of processing, data categories, recipients, storage location, retention period, and data subject rights such as access, correction, and deletion within the limits permitted by law. Participants are more willing to share health information when there is individual privacy protection, including consent (Gupta et al., 2023), indicating that explicit consent and other privacy protections such as transparency play an important role in the legitimacy of sensitive health data processing. Valid consent construction means that examination consent forms and privacy notices go hand in hand, with a clear distinction between consent for medical procedures and data processing notices for occupational health and safety obligations. Technical safeguards such as encryption, role-based access control, access logging, and incident response plans are prerequisites for compliance that must be stated in written policies.

The obligation of periodic screening cannot be separated from the occupational safety framework based on Law No. 1 of 1970 concerning Occupational Safety. This law emphasizes the obligation of managers or employers to ensure the safety of workers, including the prevention of hazards in the workplace. In factories that use chemicals, prevention requires hazard identification, exposure control, provision of personal protective equipment, and health monitoring in accordance with the risks. These obligations, however, do not license companies to waive medical approval. Normatively, Law 1/1970 positions screening as part of the prevention system, while the implementation of screening must remain compliant with medical practice, consent to treatment, and data protection. Companies are therefore required to provide free examinations, allocate examination time as working time, and ensure that there is no retaliation against workers who ask questions or request further explanations. The legal relationship is clear: companies are responsible for the safety of work processes and program financing, while doctors are responsible for the quality of medical procedures and the validity of consent. Workers have the right to be treated as equal legal subjects in the realm of medical procedures, as well as workers whose rights to safety are protected. The construction of a valid consent must reflect this balance in SOPs, forms, and clinical communication practices (Gadhiya, 2019).

Government Regulation No. 50 of 2012 concerning the Implementation of Occupational Safety and Health Management Systems provides governance instruments that compel companies to organize their OSH policies, planning, implementation, evaluation, and corrective actions in a measurable manner. In the design of screening approval, this PP is relevant because it requires documentation, internal audits, and management reviews, so that the approval procedure is not solely a clinical matter, but rather part of a management

system that can be inspected by supervisors. Companies are required to have periodic screening SOPs that cover the socialization process, scheduling methods, approval mechanisms, data management, referral processes, and complaint mechanisms. In terms of approval, PP 50/2012 encourages proof that the program is running without coercion through evidence of policy socialization, training, and data access compliance audit results. Valid approval also requires conflict of interest control: doctors contracted by the company must be guaranteed independence in delivering occupational safety recommendations. PP 50/2012 provides the basis for placing this independence as part of managerial control, for example through the establishment of an OSH function capable of rejecting excessive clinical data requests from other units. The audit system helps ensure that what is submitted to the company are recommendations on work feasibility and risk control, not individual diagnoses (Anggriawan, 2020). Ultimately, this PP binds companies to build an environment that allows approvals to be given freely because OSH procedures are managed transparently and accountably.

Ministry of Manpower Regulation No. 5 of 2018 concerning Occupational Safety and Health in the Workplace details the obligations regarding the measurement of hazard factors, exposure assessment, control, and the relationship with Threshold Limit Values, which serve as a reference for preventive measures. In chemical exposure screening, this Ministerial Regulation explains that periodic health examinations must be aligned with measurable risks, so that examinations should not be conducted arbitrarily without a risk basis. Valid approval must include an explanation of the types of chemicals relevant to the worker's work unit, the reasons for choosing specific examinations, and their relevance to exposure monitoring. This explanation is important so that workers understand that screening is a protective measure, not a tool for selecting workers. Permenaker 5/2018 also requires follow-up control measures if exposure exceeds the reference level, so the approval must include information about possible work adjustments based on medical recommendations, including temporary restrictions and control engineering measures (Ridwan et al., 2019). At this point, the role of employers is to prepare safe controls and placements, not to impose labor sanctions. A valid agreement must state that the results of the examination will be used for occupational safety and health recommendations and worker protection, and explain the form of report that the company will receive. The Permenaker 5/2018 thus becomes the normative basis for linking medical consent with the logic of objective and measurable workplace hazard prevention.

Ministry of Health Regulation No. 70 of 2016 concerning occupational health standards and requirements for industrial workplaces, including monitoring parameters and biological exposure indicators, reinforces the need for specifications in approvals, especially when screening includes biomonitoring. When examinations include parameters such as blood lead levels, cholinesterase activity, or other biomarkers that reflect chemical absorption, workers must be given an explanation of what is being measured, the limitations of interpretation, and possible clinical or occupational safety and health follow-up. Valid approvals require transparency regarding the interpretation thresholds used and their consequences for occupational safety, such as the need for exposure reduction, evaluation of technical controls, or medical referral for further examination. Ministry of Health Regulation No. 70/2016 is important because it emphasizes the relationship between workplace monitoring and biological monitoring, so that consent cannot stand alone as a clinical action without linking it to the source of danger and control programs. At the same time, biomonitoring data is highly sensitive, so it must be bound by access restrictions in accordance with the Personal Data Protection Law and medical confidentiality (Jafar, 2020). Normatively, companies can receive aggregate information on monitoring trends for workplace improvements, while individual data is stored at health facilities as part of medical records. Valid consent must explicitly state this distinction so that workers understand the architecture of data use and do not feel that examinations are being used for administrative employment purposes.

Employment relationships add a dimension of inequality that must be addressed through labor norms, particularly Law No. 13 of 2003 on Labor as amended by Law No. 6 of 2023. In this context, consent to periodic health examinations must not become a mechanism for discrimination based on health conditions, as labor law requires fair treatment, respect for the dignity of workers, and the management of employment relationships that are not arbitrary. The construction of a valid consent must include a guarantee that refusal of certain actions will be managed through risk assessment and work control options, not automatic termination of employment. If an examination is directly related to significant safety, the company can explain its OSH obligations and offer alternatives such as other

placements, reduced exposure, or adjustments to work processes. Consent is still required for medical procedures, but the consequences for occupational safety must be explained honestly and proportionally. In practice, veiled threats often arise from administrative conditioning, such as promotions or contract extensions linked to consent. Normatively, this undermines voluntariness. Companies are therefore required to establish written and enforceable anti-retaliation policies and provide secure channels for complaints. The construction of valid consent requires that workers have the space to ask questions, request further explanations, or request re-examination without fear of losing their employment rights.

In the relationship between doctors and workers, Law No. 29 of 2004 requires doctors to practice in accordance with professional standards and standard operating procedures, as well as to adhere to professional discipline. In occupational health services, the potential for conflicts of interest increases because doctors are contracted by companies and examinations are aimed at occupational safety (Pralong et al., 2015). Normatively, this conflict must be managed through a separation of roles: doctors are responsible to patients for clinical aspects and to public safety for relevant occupational safety and health recommendations. The Indonesian Medical Code of Ethics emphasizes the obligation to maintain confidentiality and professional independence, so that doctors must refuse requests for detailed clinical data from companies that are not relevant to occupational safety. A valid consent form must include an explanation to workers about the doctor's position, who is paying, what is being reported to the company, and what remains confidential. This explanation increases workers' trust and reduces the perception that examinations are a management control tool. Consent must also offer a second opinion for findings that imply work restrictions, especially when the examination results have the potential to change work eligibility status. Doctors are required to document any refusal or withdrawal of consent for subsequent actions, as well as provide explanations for safe follow-up measures. The legitimacy of consent is based on the integrity of doctors as professionals, not on the authority of companies as program funders.

The element of voluntariness in consent must be translated into an operational design that eliminates coercion, whether direct or covert (Jafar, 2020). Normatively, employers are required to ensure that examinations are conducted at no cost to workers, carried out during working hours or with equivalent compensation, and do not form the basis for reductions in wages or benefits. This policy strengthens workers' choices so that they are not trapped by economic pressures. Valid consent also requires a clear separation between clinical results and employment management, so that human resources units do not have access to diagnoses, therapy details, or specific laboratory results. The only information that is legitimate for employers is a statement of fitness for work, such as "fit," "fit with restrictions," or "temporarily unfit," accompanied by recommendations for work controls that do not reveal the diagnosis. These access restrictions are reinforced by the Personal Data Protection Act, which requires role-based access control and audit trails. The procedure must specify who is authorized to receive work eligibility reports, how they are stored, and how long they are stored. Data retention must be determined and limited according to compliance needs, not stored indefinitely. Workers should also be given the practical right to get a copy of the summary results for their health interests, request corrections if there are errors, and ask for a re-explanation of the interpretation. All of these mechanisms should be written in the SOP and disseminated before the screening period begins, so that consent is truly born out of understanding, not administrative habit.

Valid consent for chemical exposure screening needs to be risk-based, so that the content of the explanation and the form of the examination correspond to the actual hazards in the worker's workplace. Permenaker 5/2018 emphasizes hazard identification and exposure measurement, while Permenkes 70/2016 reinforces monitoring standards and biological indicators. The consent form should therefore specify the type of examination to be performed, such as spirometry for exposures affecting lung function, liver and kidney function tests for certain chemicals, or biomonitoring for substances with biological indicators. The explanation should also state the general risks of the examination, such as mild pain during blood collection, possible bruising, or discomfort during lung function tests, as well as the accuracy limitations of the results and the possibility of the need for follow-up examinations. To keep consent free, workers must be given sufficient time to consider and ask questions, including the option of assistance if needed (Stern & Sperber, 2012). If workers refuse certain measures, doctors and companies must reassess occupational risks and determine safety measures that still protect workers' rights to decent

work. Refusal should not be met with automatic punishment, but rather with control engineering, work organization, or referral for additional education. This proportional management of refusal is in line with occupational safety obligations in Law 1/1970 and OSH management obligations in Government Regulation 50/2012. Normatively, valid consent is a protective mechanism that runs concurrently with exposure prevention, so that workers are not forced to choose between privacy and safety.

There are certain circumstances in which consent may operate differently, particularly in medical emergencies (Gadhiya, 2019). In life-threatening situations or those with the potential to cause severe disability, health law and medical ethics recognize immediate action to save life as a basis for justification, while explicit consent may not be obtainable at that time. Emergency situations are not, however, identical to periodic screening programs. Periodic screening is a planned action, so the standard of written consent and adequate explanation remains the general rule. A valid construction must distinguish between routine screening, emergency treatment at work, and further referral. For referrals, consent must include information about the referral process, the destination facility, company financing, and how medical data is shared on a limited basis with the treating party. In terms of reporting to authorities for the purposes of occupational safety and health (OSH) or public health monitoring, the principles of data minimization and purpose limitation under the Personal Data Protection Law must be applied, so that workers' identities and irrelevant clinical details are not disclosed. General consent for OSH programs cannot replace specific consent for invasive procedures, so each new sample collection still requires consent. This construction reduces the risk of abuse of the "OHS obligation" pretext to expand the scope of examinations beyond work requirements. At the company level, SOPs must regulate complaint channels, re-examination mechanisms when disputes arise over results, and guarantees that workers can access second opinions. With this design, valid consent becomes a tool for legitimacy, protection, and control of power in labor relations.

Strengthening the quality of approvals requires an auditable oversight mechanism that is in line with Government Regulation No. 50/2012 on internal audits and management reviews. Relevant audits include examining compliance with approval SOPs, the adequacy of socialization materials, the quality of approval documentation, the orderly separation of medical records from employment administration, and the effectiveness of data access controls in accordance with the Personal Data Protection Law. Quality assurance also requires regular training for doctors, nurses, OSH officers, and company personnel who receive work fitness reports, so that they understand the limits of the information that may be processed. Labor unions can be involved in the development of screening and privacy policies to increase transparency, strengthen trust, and reduce suspicion that examinations are being used for non-OSH purposes. Such involvement must maintain individual confidentiality, so that only policies, SOPs, and aggregate reports are discussed. Minister of Manpower Regulation No. 5/2018 opens up space for improvements in control based on monitoring data, so that aggregate reports on exposure trends and anonymized health findings can be used for technical interventions without revealing workers' identities. In legal terms, companies must be able to demonstrate evidence of compliance through policy documents, socialization records, data access logs, and audit results and corrective actions. Doctors must be able to demonstrate that consent was given after adequate explanation, that workers could refuse without retaliation, and that reports to the company were limited to work suitability and control recommendations (Ridwan et al., 2019). Valid consent is thus part of accountable OSH governance that respects workers' health and privacy rights.

Operationally, the effectiveness of audit and training mechanisms is highly dependent on the commitment of top management and the allocation of adequate resources. Strong organizational commitment has been empirically proven to positively influence employee performance (Djaelani et al., 2022), and in this context, such commitment must be manifested in the form of budgetary support, clear authority for OSH functions, and the integration of ethical principles into the corporate culture. Continuous training is not only a matter of procedural compliance, but also capacity building to manage conflicts of interest that may arise when production demands intersect with health recommendations. The involvement of trade unions, as mentioned, is not merely a formality of participation, but a strategy to build collective ownership of occupational health programmed. Through meaningful involvement, the resulting policies and SOPs will be more grounded in the realities on the ground, reducing resistance and increasing shared accountability. In other words, strengthening the quality of consent and confidentiality should be seen as an investment in responsible corporate governance, which ultimately

contributes to a healthier, more productive and sustainable work environment.

Normatively, the construction of valid consent for periodic health screening of workers exposed to chemicals is the result of the integration of the company's occupational health and safety obligations and the professional obligations of medical personnel, with strong protection of confidentiality and personal data. The Health Law affirms patient rights and service standards, the Medical Practice Law affirms professional discipline and the responsibilities of doctors, the Minister of Health Regulation on consent for medical procedures stipulates the elements of explanation and form of consent, the Minister of Health Regulation on medical records regulates documentation and confidentiality, and the Personal Data Protection Law regulates the legality of data processing and security. while the Occupational Safety and Health Act, Government Regulation on Occupational Safety and Health (PP SMK3), and Minister of Manpower Regulation on the Work Environment detail obligations for hazard prevention and rational monitoring programs. The Labor Act and its latest amendments provide safeguards to ensure that screening programs do not become instruments of discrimination. In this three-way relationship, the boundaries that must be maintained are: doctors uphold consent and confidentiality; workers hold the right to information, choice, and protection from retaliation; employers fulfill their obligations regarding safety, financing, working hours, and restrictions on access to information. If any of these elements are ignored, consent becomes a formality and the risk of legal violations increases. The implementation and provision of screening programs have raised ethical questions about whether genuine consent has been obtained, as valid consent may rarely occur. There are good reasons to provide open, transparent, and balanced information and to encourage individuals to make their own decisions (Hofmann, 2023). A valid construction requires written policies, operational SOPs, repeated socialization at each screening period, guarantees of clinical independence, and an auditable data security system. With such an architecture, periodic screening functions as legitimate, measurable occupational health protection that respects the dignity of workers.

Reporting Limits and Confidentiality of Health Information in Periodic Screening in the Chemical Industry Environment

The limits of reporting obligations and confidentiality in periodic screening of workers exposed to chemicals must be understood as two legal obligations that go hand in hand but are mutually restrictive. Reporting is necessary so that occupational hazards can be controlled and monitored, while confidentiality is necessary so that health examinations do not become a source of stigmatization, pressure, or inappropriate employment actions. In health law, the starting point is the principle that health information is the most personal type of information, so its disclosure must have a clear legal basis, a legitimate purpose, and a scope of data limited to what is necessary. In OSH law, the starting point is the employer's obligation to prevent risks, monitor exposure, and ensure corrective action when indications of danger are found. These two starting points converge in periodic screening: examinations produce individual clinical data, while OSH programs require information for hazard control. Only when individual confidentiality is guaranteed can aggregate worker health data be disclosed to management and worker representatives for the purpose of protecting and improving worker health and safety (Rogers & Schill., 2021), which emphasizes the need to separate sensitive individual data from aggregate data used for risk control. The boundary that must be enforced is the separation between information needed to protect occupational safety and information that is purely clinical and personal. At the operational level, this boundary translates into a standard: reporting within the company and to regulatory agencies is based on risk control needs, while details of diagnoses, individual laboratory results, and medical history remain within the realm of healthcare and are protected by confidentiality. Here, the quality of governance is determined by a clear definition of the type of report, the recipient of the report, the purpose of use, and mechanisms to prevent misuse.

Law No. 36 of 2009 on Health forms the normative basis for the right to confidentiality of workers' health data, prohibiting disclosure without a valid legal basis while recognizing limited exceptions for the public interest or the prevention of health hazards. In the context of chemical exposure screening, these exceptions must be applied strictly and proportionally, and must not be used as a reason to disclose all medical records to companies. The information shared must be limited to the minimum necessary to stop harmful exposure. The successful implementation of this norm requires a strong organizational commitment to ensure that confidentiality policies are not merely formal documents, but are consistently implemented and

monitored, with organizational commitment being a key factor influencing overall employee performance and compliance (Djaelani et al., 2022). From an institutional perspective, health information should remain with doctors or health facilities, while communication with companies should be conducted through summaries relevant to occupational safety. A strict approach to interpreting this confidentiality norm remains necessary, including under the umbrella of Law No. 17 of 2023, to prevent excessive data disclosure.

Law Number 17 of 2023 concerning Health updates the framework for the implementation of health services, including strengthening service standards, strengthening the protection of service recipients' rights, and structuring a more digital health information system. For periodic screening in factories, this update is important because health data is increasingly managed through electronic systems, data exchange between health facilities, laboratories, and OSH program managers, as well as the need for integration with occupational health programs. The confidentiality limits in this regime must be interpreted as an obligation inherent to every party handling health data, whether healthcare personnel or system administrators. Normatively, the disclosure of data to other parties must comply with legal bases, purpose limitations, and security principles. Legitimate reporting to external parties, for example for the purposes of supervision or hazard prevention, must be carried out in a format that reduces the risk of personal identification if the identity is not necessary. At the same time, the Health Act demands quality services, so that if screening finds conditions that require follow-up, workers must obtain appropriate information and referrals without waiting for the company's administrative decision. Internal reporting limits to the company must ensure that exposure control and work adjustment recommendations can be implemented, while maintaining the privacy of workers in clinical relationships. The law thus encourages a two-tiered reporting design: complete clinical reports are kept in health services, while reports for occupational safety and health are limited to the adequacy of hazard control and relevant work feasibility.

Law No. 29 of 2004 on Medical Practice places confidentiality as part of professional obligations, because the relationship between doctors and patients is built on trust, and trust cannot grow if information is easily transferred to other parties. In periodic worker screening, doctors may be in a vulnerable position because the funding comes from the company. Medical practice norms emphasize that service standards and professional ethics remain the main reference. This means that doctors should not use the needs of company management as a reason to disclose details of diagnoses or individual examination results to non-medical units. The limits of reporting from doctors to companies must be structured as professional communication regarding occupational safety, such as work eligibility status and necessary restriction recommendations, without mentioning detailed diagnoses. This is in line with the objectives of occupational safety and health because companies need information to change working conditions, not to assess the personal character of workers. If broader disclosure is necessary, for example for social security claims or certain legal proceedings, the legal basis must be clear and workers must be given an explanation of what will be disclosed and to whom. In this way, legitimate reporting obligations can be fulfilled without undermining the confidentiality maintained by the medical practice regime. This norm also encourages neat record-keeping, because in the event of a dispute, orderly medical records and clear communication boundaries serve as evidence that the doctor has acted in accordance with standards.

Ministry of Health Regulation No. 269/Menkes/Per/III/2008 on Medical Records provides technical guidelines on the recording, storage, and confidentiality of health service information. In periodic screening of workers exposed to chemicals, medical records document examination results, interpretations, and follow-up plans, making them a source of sensitive data. The confidentiality limits in this regulation require that access to medical records be restricted to authorized parties in the service, and the issuance of copies or summaries must follow procedures. It is relevant to distinguish between three types of outputs: first, complete medical records that belong to the facility and are stored as service documents; second, medical summaries for workers as patients; third, non-clinical summaries for employers containing occupational safety recommendations. Internal company reporting limits should focus on third-party outputs, not complete medical records. In occupational health and safety (OHS) programs, companies often require proof that examinations have been conducted and follow-up controls are in place. This proof can be provided through OHS administrative records and aggregate reports, without copying the contents of medical records. Medical record regulations also require data integrity, so that every access and change can be traced. In digital practice, this

principle aligns with audit requirements: who accessed the records, when, and for what purpose. Minister of Health Regulation No. 269/2008 thus determines the operational limits of confidentiality, while also providing a basis for proving that reporting does not exceed authority.

Ministry of Health Regulation No. 290/Menkes/Per/III/2008 concerning Approval of Medical Procedures is relevant to the discussion of reporting and confidentiality because it regulates the need for information to patients regarding medical procedures and their consequences. During periodic screenings, workers need to be informed about the form of reporting that will be carried out after the examination, the type of information that will be conveyed to the company, and the conditions that may trigger reporting to certain agencies. This explanation is not merely a matter of consent to treatment, but rather a matter of transparency regarding the flow of data and the use of results. Confidentiality boundaries can be enforced more strongly if workers know from the outset that the company only receives a summary of occupational safety, while diagnoses remain confidential. Conversely, if workers are not given an explanation, any reporting will be perceived as a betrayal of trust, and the OSH program will lose its social legitimacy. This Minister of Health Regulation supports the principle that disclosure of health information must be based on honest communication and orderly documentation. At the follow-up stage, if abnormal results requiring referral are found, workers must understand the referral process and the parties who will receive the referral summary. Reporting limits also require that the information shared for referral is clinically relevant and limited to care needs. Minister of Health Regulation No. 290/2008 thus reinforces the obligation of transparency in the flow of information, so that legitimate reporting is not carried out unilaterally, but through procedures that are understandable and auditable.

Law No. 27 of 2022 concerning Personal Data Protection provides the most operational framework for determining reporting limits, as it regulates health data as specific personal data that requires stricter protection. In periodic screening, reporting can occur in several channels: reporting from health facilities to companies, reporting from companies to OSH supervisory agencies, reporting to health agencies when necessary, and internal reporting for SMK3 audits. The PDP Law requires the principles of purpose limitation and minimization, so that each reporting channel must have a definition of minimum valid data. The limit can be stated as a simple rule: reporting must be sufficient to trigger prevention and improvement, but must not reveal identities and clinical details if such details are not necessary. The PDP Law also requires security and accountability, so companies are required to establish role-based access controls, encryption for storage and transmission, access logging, and measurable retention policies. Aggregate reporting is an instrument that is consistent with this principle: exposure trends, workplace biomarker trends, and general findings can be reported for corrective action without naming individuals. When reporting requires the disclosure of identity, for example for follow-up care or certain administrative processes, the disclosure of identity must be accompanied by a clear legal basis and additional safeguards. The PDP Law also affirms the rights of data subjects, so workers must have a channel to request access, correction, and to know to whom the data has been shared. With this governance, reporting limits are not just a slogan, but a system design that reduces the risk of leakage and misuse.

Law No. 1 of 1970 concerning Occupational Safety and Government Regulation No. 50 of 2012 concerning the implementation of SMK3 place reporting as part of the obligation to control and monitor risks. In chemical factories, the reporting referred to is not medical record reporting, but OSH reporting on hazardous conditions, environmental measurement results, control compliance, and indications of health disorders related to exposure that should trigger corrective action. Confidentiality limits in this area mean that companies must change the design of their reports to OSH reports, not clinical reports. For example, internal management reports may state an increase in findings of lung function disorders in certain work groups, accompanied by recommendations for ventilation and material substitution evaluations, without mentioning the names of workers or individual results.

This approach underscores the interconnectedness of occupational health and safety with broader organizational performance, as a well-managed and confidential OSH reporting system contributes to a safe work environment, which in turn enhances employee professionalism and productivity (Ikhwanuddin et al., 2023). PP 50/2012 also requires management audits and reviews, so that reporting data can be tested without revealing unnecessary personal details. During the inspection stage by labor inspectors, companies can show evidence that screening was carried out in accordance with the program, that corrective actions were taken, and that the reporting system was

functioning, without submitting individual medical records unless there is a valid order that meets legal requirements. In other words, reporting limits are regulated through the sorting of evidence types: evidence of program compliance is provided in the form of SMK3 documents, while individual clinical evidence remains at the health facility. This sorting provides a double benefit, namely increasing worker confidence and strengthening company compliance with an auditable management system.

Ministry of Manpower Regulation No. 5 of 2018 concerning Occupational Safety and Health in the Workplace reinforces the need for reporting based on exposure measurement and control. This regulation directs companies to measure hazard factors and compare them with Threshold Limit Values, then implement control and monitoring measures. Under this scheme, the required reporting is technical OSH reporting: measurement results, exposure evaluation, corrective actions, and control effectiveness. Confidentiality issues arise when companies attempt to link measurement results to detailed individual health conditions. Normatively, this relationship should be managed by occupational health professionals as a professional analysis, and the output that reaches management should be in the form of recommendations for process improvements, not individual medical data. Aggregate worker health data can be disclosed to management, while personal health information that is not relevant to the protection, maintenance, or improvement of worker health must be protected as confidential information (Rogers & Schill, 2021). If there are indications that certain work groups are at higher risk, companies are required to improve controls, tighten procedures, or review PPE. Internal reporting to encourage such actions, however, is sufficiently aggregate-based and without personal identification. This Minister of Manpower Regulation also requires documentation, so reporting limits need to be translated into a report template: sections containing technical data and control plans can be opened for audit, while sections containing specific worker information are strictly restricted. With this design, companies fulfill their OSH obligations without expanding non-medical parties' access to health data. Reporting limits serve as a bridge that protects privacy while ensuring hazard control continues through relevant data.

Ministry of Health Regulation No. 70 of 2016 concerning occupational health standards, which includes biological monitoring indicators, requires special attention to reporting. Biomonitoring data is highly sensitive because it reflects cumulative exposure and disease risk. Normatively, reporting should be differentiated between individual reports which are provided to workers as part of the clinical relationship and programmed reports that are aggregated per work unit or type of exposure to assess the effectiveness of controls. The principle of confidentiality emphasizes that individual biomarker data should not be used in production meetings or performance evaluations. If work restrictions are necessary, information to the company must be in the form of recommendations, not biomarker values or diagnoses. Reporting to authorities must apply the principle of data minimization. This Minister of Health Regulation also strengthens the company's obligation to improve the work environment if indicators show problems. With this orientation, biomonitoring reporting becomes an ethical and legally compliant safety instrument.

Ministry of Health Regulation No. 48 of 2016, often referred to as the regulation on occupational health examinations, stipulates that periodic screening is part of occupational health efforts that must be carried out in a planned manner and in accordance with the risks. Although implementation practices may vary according to sector and type of hazard, the general norm that needs to be upheld is the separation between health examination results as clinical information and the company's obligation to improve occupational safety and health. In the discussion of reporting, this regulation supports the idea that work-related examination findings need to be followed up through improvements to the work environment, process adjustments, or referrals to health services.

Confidentiality means that examination findings do not become widely circulated information within the organizational structure. Proper reporting by health workers to companies should take the form of program recommendations, such as the need for exposure evaluation, the need for PPE training, or the need for exposure rotation, without disclosing diagnoses. In external reporting, for example to health or labor agencies, reports should be prepared as occupational health program reports, including the number of workers examined, types of examinations, anonymized summaries of findings, and planned corrective actions. If there is a need for reporting with identities, the legal basis must be established and workers need to be given an explanation of the reporting channels. At this point, the PDP Law provides security and accountability standards, while the medical practice regime provides ethical standards to maintain trust. The key to limiting reporting is to select information that is

sufficient for prevention, but does not exceed legitimate needs.

Reporting limits and confidentiality are also related to industrial relations, as health data can easily be misused for labor actions. Law Number 13 of 2003 concerning Workers, as amended by Law Number 6 of 2023, requires fair management of labor relations and prohibits practices that demean the dignity of workers. In the reporting design, companies need to ensure that human resources units do not use screening results as a basis for termination of employment or reduction of rights, except through legitimate and proportional mechanisms based on safety. Confidentiality limits support this objective because they prevent health data from being used as a tool for covert selection. Internal reporting should ideally be limited to occupational safety and health units and management handling hazard control, with role-based access and access logging. If a company requires work adjustments, such decisions should be based on concise and professionally verifiable occupational safety recommendations, not on diagnoses irrelevant to the job. Workers must have a channel for objection if they feel that their health information has been disclosed or used beyond the purposes of safety. This channel can be incorporated into the SMK3 complaint mechanism and the industrial relations dispute resolution mechanism. The reporting threshold does not stand alone, but rather serves as a safeguard to prevent discriminatory employment practices and to ensure that screening programs continue to be viewed as protection rather than a threat.

At the operational level, balancing reporting and confidentiality requires detailed document management. Companies must establish classifications for information such as individual clinical data, work suitability recommendations, environmental monitoring, and programmed aggregate reports each with clear recipients, purposes, and retention periods. Obligations for health and safety reporting under Law 1/1970, Government Regulation 50/2012, and Minister of Manpower Regulation 5/2018 are fulfilled through technical and programmed reports, while confidentiality obligations under the health regime and Personal Data Protection Law are fulfilled through access restrictions, pseudonymization, and technical-administrative security. Health facilities and companies require SOPs for the release and storage of non-diagnostic summaries. External reporting requires a responsible party and a format that avoids unnecessary personal data. Privacy training is mandatory, and an incident response plan in accordance with the PDP Law must be ready to be implemented. This design ensures the effectiveness of preventive reporting and the protection of workers' confidentiality rights.

CONCLUSION

The legal framework for periodic health screening of factory workers exposed to chemicals requires two mutually reinforcing safeguards: valid medical consent and proportional reporting procedures. Valid consent requires adequate explanation, free choice without pressure from employment relationships, specification of the type of examination, and neat documentation in health service medical records. Mandatory reporting must be carried out for occupational health and safety and monitoring purposes, but such reporting must be limited to information relevant to hazard control, prioritizing work suitability summaries and aggregate data rather than personal clinical diagnoses and details. The separation of medical records from employment administration, role-based access restrictions, technical security, audit trails, and retention policies are essential compliance requirements, as without them, screening risks losing its legitimacy and becoming a non-medical control mechanism that violates workers' privacy rights.

For doctors and service facilities, the implication is the obligation to maintain discipline in communicating examination results: results and clinical explanations are given to workers, while companies receive outputs limited to occupational safety recommendations. For companies, the implication is the need to develop auditable SOPs within the SMK3 framework, ranging from data classification, reporting channels, report formats, to data security and incident handling. For workers, the implication is the availability of a safer position to exercise their right to ask questions, request further explanations, and raise objections if there is access to data that exceeds the intended purpose. Institutionally, the implementation of exposure monitoring, risk assessment, and data-driven corrective actions enables workplace improvements without disclosing workers' identities, thereby ensuring that health protection and privacy protection can coexist harmoniously in practice.

Companies are advised to develop a consistent set of documents, including occupational health program privacy policies, SOPs for chemical hazard screening, SOPs for internal and external reporting, and function-based data access matrices. Physicians are advised to use consent forms for each type of

action, specify the limits of information reported to the company, and provide a second opinion mechanism for findings that could potentially change work eligibility. The OSH unit is advised to prioritize aggregate reporting, conduct regular data access audits, and ensure that corrective actions on the source of the hazard are taken before administrative measures against workers. A secure complaint mechanism, scheduled re-examinations, and mandatory privacy training for relevant personnel need to be established so that compliance can be maintained and checked during each screening period.

REFERENCES

Abdullah, I. S. T., Hardyansah, R., & Khayru, R. K. (2023). Presumed Consent and the Doctrine of Necessity as the Basis for Emergency Medical Treatment Without Informed Consent. *Journal of Social Science Studies*, 3(1), 343-354.

Anggriawan, R. (2020). Responding to Covid-19: Indonesian Occupational Health and Safety Policy for Corporate Compliance. *Journal of Industrial Hygiene,* 5(1), 50-64.

Batlle, A. R., do Carmo, A. P., de Carvalho, F. I., Miziara, I. D., & Miziara, C. S. M. G. (2022). Confidentiality in Occupational Medicine: Protecting Information. *Revista Bioética*, 30, 126-138.

Chairul, Z., Hardyansah, R., Waskito, S., & Khayru, R. K. (2023). Informed Consent as a Fundamental Right of Patients: The Law and Medical Ethics Perspective. *Journal of Social Science Studies*, 3(2), 209-214.

Damman, O. C., van der Beek, A. J., & Timmermans, D. R. M. (2015). Employees are Ambivalent About Health Checks in the Occupational Setting. *Occupational Medicine*, 65(6), 451-458.

Darmawan, D., & Djaelani, M. (2021). Correlation of Work Stress and Performance of Construction Project Manager. *ARRUS Journal of Engineering and Technology*, 1(2), 55-59.

Djaelani, M., Sinambela, E. A., Darmawan, D., & Mardikaningsih, R. (2021). Strengthening the Culture of Occupational Safety and Health as a Contributor to the Formation of Construction Project Performance. *Journal of Marketing and Business Research (MARK),* 1(2), 59-70.

Djaelani, M., Sudja'i, S. I., Munir, M., & Darmawan, D. (2022). The Effect of Supervision, Compensation Systems, and Organizational Commitments on the Performance of Employees in Construction Services Companies. *Jurnal Ilmiah Edunomika*, 6(1), 110-118.

Jafar, F. H. (2020). Legal Protection Regarding Medical Record of Prospective Workers in Job Recruitment Health Test. *Law Research Review Quarterly*, 6(1), 77-84.

Lethy, Y. N., Issalillah, F., Vitrianingsih, Y., Darmawan, D., & Khayru, R. K. (2023). Legal protection for patients against negligence of medical personnel. *International Journal of Service Science, Management, Engineering, and Technology*, 4(2), 39-43.

Feriadi, E. H., Khayru, R. K., Issalillah, F., Vitrianingsih, Y., & Mardikaningsih, R. (2023). Patient Autonomy, Paternalistic Healthcare Providers, and Criminal Liability in Therapeutic Contracts. *Journal of Social Science Studies*, 3(1), 307-318.

Gadhiya, Y. (2019). Data Privacy and Ethics in Occupational Health and Screening Systems. *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*, 5(3), 331-337.

Gram, E. G., Jønsson, A. B. R., Brodersen, J. B., & Damhus, C. S. (2023). Questioning 'Informed Choice'in Medical Screening: The Role of Neoliberal Rhetoric, Culture, and Social Context. *In Healthcare MDPI.*, 11(9), 1-12.

Gupta, R., Iyengar, R., Sharma, M., Cannuscio, C. C., Merchant, R. M., Asch, D. A., Mitra, N., & Grande, D. (2023). Consumer Views on Privacy Protections and Sharing of Personal Digital Health Information. *JAMA Network Open*, 6(3), 1-13.

Herisasono, A., Darmawan, D., Gautama, E. C., & Issalillah, F. (2023). Protection of Patient Rights in the Perspective of Law and Medical Ethics in Indonesia. *Journal of Social Science Studies*, 3(2), 195-202.

Hofmann, B. (2023). To Consent or Not to Consent to Screening, that is the Question. In *Healthcare. MDPI*, 11(7), 1-12.

Horie, S. (2004). Privacy of Workers and Handling of Personal Information in Occupational Health. *Journal of UOEH*, 26(4), 481-505.

Ikhwanuddin, I., Rizky, M. C., & Putra, A. R. (2023). The Influence of Occupational Health and Safety on Employee Professionalism and Work Productivity. *International Journal of Service Science, Management, Engineering, and Technology*, 3(1), 32-36.

Permatasari, P., & Alkays, M. I. (2023). Analisis Perlindungan Hukum dan Keselamatan Kerja

Terhadap Tenaga Kesehatan di Indonesia. *Postulat*, 1(2), 67-78.

Pralong, L., Berthet, A., Vernez, D., Hopf, N. B., & Benaroyo, L. (2015). Biomonitoring Information Management and Communication: An Ethical and Interdisciplinary Perspective. *Revue Médicale Suisse*, 11(499), 2400-2403.

Radjawane, L. E., & Darmawan, D. (2022). Construction Project Worker Satisfaction Reviewing from the Role of the Work Environment and Leadership. *International Journal of Service Science, Management, Engineering, and Technology*, 1(3), 36-40.

Republic of Indonesia. (1970). *Law Number 1 of 1970 Concerning Occupational Safety*. State Gazette of the Republic of Indonesia Year 1970 Number 1. State Secretariat, Jakarta.

Republic of Indonesia. (2003). *Law No. 13 of 2003 on Manpower.* State Gazette of the Republic of Indonesia 2003 No. 39; Supplement to State Gazette No. 4279), as amended by Law No. 6 of 2023 (State Gazette of the Republic of Indonesia 2023 No. 41; Supplement to State Gazette No. 6856). State Secretariat, Jakarta.

Republic of Indonesia. (2004). *Law No. 29 of 2004 on Medical Practice*. State Gazette of the Republic of Indonesia 2004 No. 116; Supplement to State Gazette No. 4431. Secretariat, Jakarta.

Republic of Indonesia. (2008). *Minister of Health Regulation No. 269/MENKES/PER/III/2008 on Medical Records*. State Gazette of the Republic of Indonesia 2008 No. 199. Secretariat, Jakarta.

Republic of Indonesia. (2008). *Minister of Health Regulation No. 290/MENKES/PER/III/2008 on Medical Action Consent*. State Gazette of the Republic of Indonesia 2008 No. 434. Secretariat, Jakarta.

Republic of Indonesia. (2009*). Law No. 36 of 2009 on Health*. State Gazette of the Republic of Indonesia 2009 No. 144; Supplement to State Gazette No. 5063. Secretariat, Jakarta

Republic of Indonesia. (2012). *Government Regulation No. 50 of 2012 on the Implementation of Occupational Safety and Health Management System (OSHMS)*. State Gazette of the Republic of Indonesia 2012 No. 100; Supplement to State Gazette No. 5309. Secretariat, Jakarta.

Republic of Indonesia. (2016). *Minister of Health Regulation No. 48 of 2016 on Workers' Health Examination*. State Gazette of the Republic of Indonesia 2016 No. 1133. Secretariat, Jakarta.

Republic of Indonesia. (2016). *Minister of Health Regulation No. 70 of 2016 on Standards and Requirements for Industrial Work Environment Health and Related Monitoring Indicators*. State Gazette of the Republic of Indonesia 2016 No. 1697. Secretariat, Jakarta.

Republic of Indonesia. (2018). *Minister of Manpower Regulation No. 5 of 2018 on Occupational Safety and Health of the Work Environment*. State Gazette of the Republic of Indonesia 2018 No. 567. Secretariat, Jakarta.

Republic of Indonesia. (2022). *Law No. 27 of 2022 on Personal Data Protection*. State Gazette of the Republic of Indonesia 2022 No. 196; Supplement to State Gazette No. 6820. Secretariat, Jakarta.

Republic of Indonesia. (2023). *Law No. 17 of 2023 on Health*. State Gazette of the Republic of Indonesia 2023 No. 105; Supplement to State Gazette No. 6887. Secretariat, Jakarta.

Ridwan, R. R., Kamariah, N., & Syukur, A. T. (2019). Evaluasi Penerapan Pemeriksaan Kesehatan Tenaga Kerja di Balai Besar Pengembangan Keselamatan dan Kesehatan Kerja Kota Makassar. *Jurnal Administrasi Negara*, 25(3), 246-262.

Rogers, B., & Schill, A. L. (2021). Ethics and Total Worker Health®: Constructs for Ethical Decision-Making and Competencies for Professional Practice. *International Journal of Environmental Research and Public Health*, 18(19), 1-15.

Rumbold, J. M. M., & Pierscionek, B. (2017). The Effect of the General Data Protection Regulation on Medical Research. *Journal of Medical Internet Research*, 19(2), 1-6.

Salhah, A., Suwarni, A., & Hariyono, W. (2013). Analisis Ketaatan Karyawan dalam Pemeriksaan Kesehatan Berkala di Rumah Sakit PKU Muhammadiyah Kota Yogyakarta. *Kesmas*, 5(1), 11-20.

Setiyadi, G. B., Negara, D. S., Khayru, R. K., Darmawan, D., & Saputra, R. (2023). Misdiagnosis and Legal Liability of Doctors: A Normative Juridical Study in the Indonesian Health System. *Journal of Social Science Studies,* 3(2), 215-220.

Stern, A. F., & Sperber, S. (2012). Occupational Physicians' Perceptions and Impact of 2009 GMC Consent Guidelines. *Occupational Medicine*, 62(7), 560-562.

Taylor, M. J., & Wilson, J. (2019). Reasonable Expectations of Privacy and Disclosure of Health Data. *Medical Law Review*, 27(3), 432-460.

***Mathius, D. N, Vitrianingsih, Y, & Mardikaningsih, R. (2024). Consent and Reporting of Periodic Screening of Workers Exposed to Chemicals in Factories, *Journal of Social Science Studies* 4(1), 391 – 406.**