Jornal de Assistência Farmacêutica e Farmacoeconomia
v.11, n.2, 2026.
Original article

Acquisition of medicines: challenges of using the Materials Catalog (CATMAT) in public purchases

Aquisição de medicamentos: desafios da utilização do Catálogo de Materiais (CATMAT) nas compras públicas

Paula Teixeira Pinto Ferreira Neto[1]; Camila Rocha da Cunha[1];Tais Rubia dos Santos[1]; Vanessa da Gama Oliveira[1]

[1] Instituto Nacional de Infectologia Evandro Chagas, Rio de Janeiro, RJ, Brazil.

Corresponding author:
Paula Teixeira Pinto Ferreira Neto; Av. Brail, 4365 - Manguinhos, Rio de Janeiro CEP: 21040-360. E-mail: paula.neto@ini.fiocruz.br

How to cite:
Ferreira Neto PTP, Cunha CR, Santos TR, Oliveira VG. Acquisition of medicines: challenges of using the Materials Catalog (CATMAT) in public purchases. Jornal de Assistência Farmacêutica e Farmacoeconomia. 2026;11(2).

Received on: 02/27/2025
Accepted for publication on: 02/20/2026

ABSTRACT

Objectives: To analyze the registration of items in the Catalog of Materials (CATMAT) class "6505 – Drugs" from the perspective of a Federal Institute of Infectious Diseases in Rio de Janeiro, and to discuss the challenges associated with its application in medicine procurement within Brazilian Unified Health System (SUS). **Methods**: This descriptive study used documentary research as its methodological approach. The general list of CATMAT items was obtained through the Integrated Ombudsman and Information Access Platform "Fala.BR". For the analyses of the selected medicines, the recommendations of the "Ministry of Health´s Descriptive Standard for Medicines" and the "Controlled Vocabulary of Pharmaceutical Dosage Forms, Routes of Administration and Medicine Packging" of the Brazilian Health Regulatory Agency (ANVISA) were used as references. **Results:** CATMAT contained 11,548 registered items in the class "6505 – Drugs and Medicines," of which 5,788 had "active" status. Among the medicines analyzed, 92% of the items had the active pharmaceutical ingredient described according to the Brazilian Common Denomination (DCB). Among compounded medicines, 71% had the "composition" field completed in the registry; in 6% of the records, information on "composition" was not applicable but was filled in inadvertently. Additionally, 96% of the items contained dosage information, 61% of the records reported the "pharmaceutical dosage form," and the "optional characteristics" field was observed in 5% of the items. **Conclusions**: Despite efforts to catalog medicines acquired by the Public Administration, the results indicate a persistent lack of standardization in the registry descriptions, as well as incomplete information, which may hinder the procurement process.
Key words: Pharmaceutical Services; Cataloging; Material Resource Management; Unified Health System; Health Care Economics and Organizations.

RESUMO

Objetivos: Analisar o cadastro dos itens da classe "6505 - Drogas e medicamentos" do CATMAT, sob a ótica de um Instituto Federal de Infectologia no Rio de Janeiro, discutindo os desafios para sua aplicação na aquisição de medicamentos no SUS. **Métodos:** Pesquisa descritiva que adotou como procedimento metodológico a pesquisa documental. A relação geral dos itens do CATMAT foi obtida através da Plataforma Integrada de Ouvidoria e Acesso à Informação "Fala.BR" e para análise da relação dos medicamentos selecionados foi utilizado como referência as recomendações do "Padrão Descritivo de Medicamentos do Ministério da Saúde" e do "Vocabulário Controlado de Formas Farmacêuticas, Vias de Administração e Embalagens de Medicamentos" da Agência Nacional de Vigilância Sanitária. **Resultados:** O CATMAT possuía 11.548 itens cadastrados da classe "6505 - Drogas e medicamentos", sendo 5.788 com *status* "ativo". Entre os medicamentos analisados, 92% dos itens continham o princípio ativo do medicamento descrito conforme a Denominação Comum Brasileira (DCB). Dentre os medicamentos compostos, 71% estavam com a "composição" preenchida no cadastro, em 6% dos cadastros a informação sobre a "composição" não era aplicável, porém foi preenchida inadvertidamente, 96% dos itens continham a informação da concentração, 61% dos cadastros informavam a "forma farmacêutica" dos medicamentos e o campo "características opcionais" foi observado em 5% dos itens. **Conclusões:** Apesar dos esforços para catalogar os medicamentos adquiridos pela Administração Pública, os resultados evidenciam que ainda existe uma falta de padronização nos descritivos dos cadastros e incompletude de informações que podem comprometer a aquisição dos medicamentos.
Palavras-chave: Assistência Farmacêutica; Catalogação; Gestão de Recursos Materiais; Sistema Único de Saúde; Economia e Organizações de Saúde.

Introduction

In Brazil, health is a fundamental right for all and a duty of the State, guaranteed to the population through socioeconomic policies aimed at reducing the risk of disease and other health conditions, as well as ensuring universal and equitable access to health actions and services. Comprehensive therapeutic care, including pharmaceutical services, is included within the scope of the Unified Health System (UHS).[1,2,3,4]

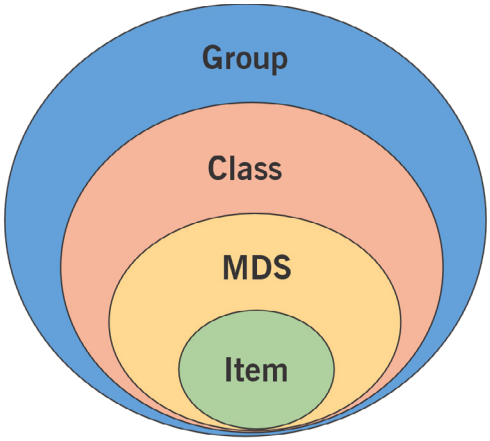
Among the actions to ensure the population's access to medicines is their acquisition, in order to supply health services with safe and effective medicines.[5] In the UHS, except for cases specified in the legislation, acquisitions of goods and/or services must be carried out through a public bidding process that ensures equal conditions for all competitors.[1,6]

According to the new Public Procurement Law currently in force,[6] Law No. 14,133 of April 1, 2021, medicines are considered "common goods and services", that is, items whose performance and quality criteria can be directly established in the bidding notice, using common market specifications, and as such, must be acquired through the auction modality, preferably conducted in electronic form. Electronic auctions seek to enhance competitiveness and agility in public procurement, leveraging the advantages provided by the internet.[7]

In all acquisitions carried out by the federal public administration, the use of the Materials Catalog (CATMAT) is mandatory for the description and coding of the items to be acquired.[8] Cataloging is an inherent aspect of materials management and supply management, including in the health sector, with the objectives of promoting cost reduction and increasing transparency in processes, thereby enabling social control.[9,10]

CATMAT presents coded items organized in a hierarchical structure separated by group, class, material descriptive standard (MDS), and item.[11] The "group" is the broadest category and distinguishes each type of material by application down to the lowest level, reaching the "item", which is the cataloging product that contains the specific description of the purchased product and is identified by an alphanumeric code called the "BR Code".[8] The hierarchical structure of CATMAT is shown in Figure 1.

Figure 1. Hierarchical structure of CATMAT



Source: Prepared by the authors based on Brasil, 2017.[8]

Additionally, CATMAT includes the information "unit of supply" for each item, represented by the smallest possible purchasing unit for a given group of items. In the case of medicines, the "unit of supply" should be estimated in units such as tablets, capsules, ampoules, suppositories, among others, and not in quantities of boxes or secondary packaging. The "unit of supply" selected for the acquisition of the item is also the unit used for pricing the item in the bidding process.[8,12]

CATMAT codes identify the items to be acquired in all stages of the procurement process, in price research, in the publication of the event, in the bidding process itself, and even in the issuance of the commitment note for the supply of that item. In this way, the standardization of items according to the catalog allows the integration of data into a single language, enabling the monitoring of public procurement and the prices practiced by the Public Administration, increasing transparency in the use of UHS resources.[10]

The objective of this study is to analyze the registration of items in the class "6505 , Drugs and medicines" of CATMAT, from the perspective of a Federal Institute of Infectology in Rio de Janeiro, discussing the challenges for its application in the acquisition of medicines within the UHS.

Methods

This was a descriptive study that adopted documentary research as its methodological procedure and sought to understand aspects related to the topic beyond what can be quantified.[13]

The general list of items in the class "Drugs and medicines , 6505" of CATMAT was obtained through a request to the Ministério da Saúde via the Integrated Ombudsman and Access to Information Platform "Fala. BR" in May 2024. From this list, the medicines that are standardized and, therefore, regularly acquired through electronic auctions in a Federal Institute of Infectology in Rio de Janeiro were identified, resulting in a selection of 381 items, their respective CATMAT codes, and descriptions for verification.

For the analysis of the selected medicines, the recommendations of the "Padrão Descritivo de Medicamentos do Ministério da Saúde"[12] and the "Controlled Vocabulary of Pharmaceutical Forms, Routes of Administration and Packaging of Medicines" from ANVISA[14] were used as references.

In alignment with the "Padrão Descritivo de Medicamentos do Ministério da Saúde", the registration of the selected medicines was analyzed regarding the use of the Brazilian Common Denomination (DCB), composition, concentration, pharmaceutical form, and additional characteristics, as detailed in Table 1. For the analysis of compliance regarding the use of DCB, the "Consolidated List of DCB , updated on 05/08/2024" available on the ANVISA website was used as a reference.[15]

For the analysis of pharmaceutical forms and routes of administration used in the registration of the selected medicines, compliance of the registration with the terminology adopted by the Controlled Vocabulary of ANVISA was verified.

The units of supply available in CATMAT were also assessed regarding their adequacy to the registered medicine.

Since acquisitions are carried out based on the smallest possible purchasing unit, regardless of packaging, the analysis of the registration did not include this variable.

All data were entered into an electronic spreadsheet for better visualization and analysis of the results.

As this is a documentary study, without access to individuals or restricted-access information, evaluation by the CEP/CONEP system (Comitês de Ética em Pesquisa/Comissão Nacional de Ética em Pesquisa) does not apply to the present study.

Table 1. Characteristics of medicines to be considered in the registration of items in the class "Drugs and medicines , 6505" according to the "Padrão Descritivo de Medicamentos do Ministério da Saúde"

Characteristics	Definition
Composition (optional use)	Refers to combinations of drugs when the medicine has more than one active ingredient, and the one with the highest concentration will, as a rule, be listed first, that is, the name that will appear first in the MDS.
Concentration (mandatory use)	Amount of the pharmacologically active ingredient contained in the medicine per unit of pharmaceutical dosage. In solid forms (tablet, capsules, dragees, ovules, transdermal patches, lyophilized powder for injection, and suppositories), the concentration is expressed per unit of weight (mg, g, etc.). In liquid or semisolid forms, the concentration is expressed in mg/mL, mg/g, or percentage, and should be expressed per the smallest volume or weight (1 mL or 1 mg, or their variations such as L, g, mcg, etc.). In combinations, concentrations are described in the same respective order as the active ingredients contained in the medicine.
Pharmaceutical form (mandatory use)	Final state of presentation of the active ingredients after the pharmaceutical manufacturing process, with the aim of facilitating administration and preservation.
Additional characteristics (optional use)	Technical specifications inherent to the presentation form of certain medicines, such as "prefilled syringe", "pen injector", "specially compounded formulation", among others.

Source: Prepared by the authors based on Brasil, 2021c.[12]

Results

In May 2024, CATMAT had 11,548 items registered in the class "6505 , Drugs and medicines", of which 5,788 records had "active" status and 5,761 had "suspended" status. The 5,788 items with "active" status registered in the class "Drugs and medicines , 6505" corresponded to 1,435 different MDS.

Among the 381 medicines standardized at the Institute, 7 items were not registered in the class "6505 , Drugs and medicines" of CATMAT and, therefore, their records were not analyzed in this study. The standardized items "Water for injection ampoule 10 mL", "Water for injection vial 500 mL", and "Lugol 5% solution for external use vial 100 mL" were registered in the class "6550 , Substances for in vitro diagnosis, reagents, sets and test kits", and the items "Potassium iodide capsules" in the presentations of 5 mg, 10 mg, 15 mg, and 20 mg were registered in the class "6509 , Drugs and biological products for veterinary use".

Thus, the analysis proceeded with the registration of the other 374 standardized medicines that were classified under the class "6505 , Drugs and medicines".

Regarding the use of the Brazilian Common Denomination (DCB) in the registration of the 374 medicines analyzed, 345 items (92%) were registered with the active ingredient described in accordance with the approved DCB, while 29 items (8%) were not described in compliance with the DCB or were only partially compliant with the DCB. Considering that some items share the same CATMAT code, differing only in units of supply, the 29 standardized items that were not described in compliance with the DCB correspond to 25 records, as detailed in Table 2.

As detailed in Table 1, the item description must include information on composition, concentration, pharmaceutical form, and, when applicable, other additional characteristics, with "concentration" and "pharmaceutical form" considered mandatory information in the registration.

The information on "composition" in the registration refers to combinations of drugs, which would apply to 28 medicines standardized at the Institute. Of these, 20 items (71%) had the "composition" field completed in the registration, while in 8 items (29%) the registration did not include the "composition" field, but contained information on the other active ingredients described as "Active Ingredient" (3), "Presentation" (3), "Basic Composition" (1), and "Vitamin Composition" (1), as shown in Table 3.

In 21 records (6%), the information on "composition" was not applicable, as these were not drug combinations, however, it was inadvertently completed with other information, such as the name of the active ingredient, salt, or concentration of the medicine, as shown in Table 4.

Regarding the "concentration" of medicines in the registration, a characteristic identified as mandatory, this information was present in most records (358, 96%), although it was mainly described as "dosage" (232, 62%) and "concentration" (126, 34%). In 10 items (3%), the information appeared as "active ingredient", "pharmaceutical form", "composition", "alcohol content", "tablet dosage", or "iron dosage".

In 6 items (1%), there was no information on concentration: "Hydrogen peroxide (oxygenated water), Type: 10 volumes", "B-complex vitamins, Basic composition:B1 + B6 + B12, Use: Injectable solution", "Petrolatum, Physical state: Liquid, Type: Laxative, Use: Oral", "Trace elements, Composition: Cr, Cu, Mn, Zn, Type of use: Adult, Presentation: Injectable solution", "Multivitamins, Vitamin composition: vits: A, B1, B2, B3, B5, B6, B12, C, D, E, H, Other components: Folic acid, Pharmaceutical form 1: Lyophilized powder for injection", and "Ringer, Composition: Associated with sodium lactate, Pharmaceutical form: Injectable solution, Additional characteristic: Closed system".

The pharmaceutical form of the medicines, also mandatory in the description, was present in 227 records (61%), mainly described as "pharmaceutical form" (100, 27%), "presentation" (57, 15%), "indication" (29, 7%), and "use" (19, 5%). In 22 items (6%), the pharmaceutical form was present but described as "application", "medicine type", "active ingredient", "type of use", "physical state", or "composition". For the remaining items (147, 39%), there was no mention of pharmaceutical form in the medicine description.

Regarding compliance with the ANVISA controlled vocabulary, it was not possible to assess the 147 items whose registration did not include pharmaceutical form in the description. However, among the 227 records that included this information, 151 items (67%) were registered in accordance with the controlled vocabulary, while 76 items (33%) were not compliant or only partially compliant. A recurring term in the records (71 items, 19%) that is not included in the controlled vocabulary is "injectable", a non-specific term for both pharmaceutical form and route of administration.

Table 2. Standardized medicines at the Institute whose CATMAT records are not compliant, or are partially compliant, with the DCB

Item description in CATMAT	DCB (ANVISA, 2024)
Ceftaroline, composition:fosamila, concentration: 600 mg, pharmaceutical form: powder for extemporaneous preparation	Ceftaroline fosamil
B-complex vitamins, basic composition: B1 + B6 + B12, use: injectable solution	Thiamine hydrochloride, pyridoxine hydrochloride and cyanocobalamin
Diclofenac, presentation: potassium sal, dosage: 50 mg	Diclofenac potassium
Sodium dipyrone, dosage: 500 mg	Dipyrone
Sodium dipyrone, dosage: 500 mg/ml, presentation: injectable solution	Dipyrone
Sodium dipyrone, dosage:500 mg/ml, presentation: oral solution (drops)	Dipyrone
Enoxaparin, concentration: 100 mg/ml, pharmaceutical form: injectable solution, additional characteristics 1: prefilled syringe	Enoxaparin sodium
Trometamol, composition:fosfomycin, concentration: 3 g, pharmaceutical form: granules	Fosfomycin trometamol
Iron III, concentration: 20 mg/ml, pharmaceutical form: injectable solution	Ferric hydroxide sucrose complex
Radiological contrast, type:non-ionic, composition: iopamidol-based, concentration: 370 mg of iodine/ml, pharmaceutical form:injectable solution	Iopamidol
Hydrophilic psyllium muciloid, composition: plantago ovata, concentration: 525 mg	Plantago ovata forssk.
Parenteral nutrition, composition:amino acid solution without glutamine, with lipid emulsion, components:may or may not include addition of: Ca, Na, K, Cl, P, Mg ions, other components:trace elements, glucose, vitamins and selenium, concentration:components in varied concentrations and volumes, pharmaceutical form: specially compounded injectable preparation	Olive oil, soybean oil, alanine, arginine, aspartic acid, glutamic acid, glycine, histidine, isoleucine, leucine, lysine acetate, levomethionine, phenylalanine, proline, threonine, tryptophan, tyrosine, levovaline, sodium acetate trihydrate, sodium glycerophosphate, potassium chloride, magnesium chloride hexahydrate, calcium chloride dihydrate and glucose monohydrate.
Petrolatum, physical state:liquid, type:laxative, use:oral	Liquid petrolatum
Trace elements, composition: Cr, Cu, Mn, Zn, type of use:adult, presentation: injectable solution	Zinc sulfate, copper sulfate, manganese sulfate and chromium chloride.
Zinc oxide, active ingredient: associated with vitamin A + vitamin D, dosage:150 mg + 5,000 iu + 900 iu/g, presentation:ointment	Zinc oxide, retinol and cholecalciferol.
Podophyllin, concentration: 25%, pharmaceutical form: topical hydroalcoholic solution, additional characteristic:specially compounded	Podophyllotoxin
Podophyllin, concentration: 25%, pharmaceutical form: ointment, additional characteristic:specially compounded	Podophyllotoxin
Polystyrene sulfonate, composition:calcium, concentration: 900 mg/g, pharmaceutical form:powder for oral suspension	Calcium polystyrene sulfonate
Multivitamins, vitamin composition:vits: A, B1, B2, B3, B5, B6, B12, C, D, E, H, other components:folic acid, pharmaceutical form 1: lyophilized powder for injection	Retinol palmitate, cholecalciferol, dextralpha-tocopherol, ascorbic acid, cocarboxylase, riboflavin sodium phosphate, pyridoxine hydrochloride, cyanocobalamin, folic acid, dexpanthenol, biotin and nicotinamide
Ringer, composition:associated with sodium lactate, pharmaceutical form:injectable solution, additional characteristic: closed system	Sodium chloride, potassium chloride, calcium chloride and sodium lactate
Oral rehydration salts, composition:sodium, potassium, chloride, citrate and glucose, concentration: 90 meq/l + 20 meq/l + 80 meq/l + 30 meq/l + 111 mmol/l, pharmaceutical form: powder for oral solution	Sodium chloride, potassium chloride, sodium citrate dihydrate and glucose.
Silver sulfadiazine, active ingredient, dosage: 1%, indication:cream	Silver sulfadiazine
Radiological contrast, composition:barium sulfate-based, concentration:100%, pharmaceutical form:oral suspension	Barium sulfate
Petrolatum, concentration: pure, pharmaceutical form:topical liquid	Liquid petrolatum
Petrolatum, concentration: pure, pharmaceutical form:ointment	White petrolatum

Source: Prepared by the authors, 2024.

Table 3. Standardized medicines at the Institute with more than one active ingredient whose CATMAT records do not have the "composition" field completed

BR Code	Item description in CATMAT
271100	Amoxicillin, active ingredient: associated with potassium clavulanate, concentration: 1 g + 200 mg, presentation: injectable
271217	Amoxicillin, active ingredient: associated with potassium clavulanate, concentration: 500 mg + 125 mg
270813	Cyanocobalamin, presentation: associated with pyridoxine and thiamine, dosage: 5 mg + 100 mg + 100 mg
270907	Paracetamol, presentation: associated with codeine, dosage: 500 mg + 30 mg
274567	B-complex vitamins, basic composition: B1 + B6 + B12, use: injectable solution
271355	Metronidazole, presentation: associated with nystatin, concentration: 100 mg + 20,000 iu/g, pharmaceutical form: vaginal cream
449107	Multivitamins, vitamin composition: vits: A, B1, B2, B3, B5, B6, B12, C, D, E, H, other components: folic acid, pharmaceutical form 1: lyophilized powder for injection
279493	Zinc oxide, active ingredient:associated with vitamin A + vitamin D, dosage: 150 mg + 5,000 iu + 900 iu/g, presentation: ointment

Source: Prepared by the authors, 2024.

Table 4. Standardized medicines at the Institute with a single active ingredient whose CATMAT records have the "composition" field inadvertently completed

BR Code	Item description in CATMAT
347527	Alanylglutamine, composition: associated with l-alanine, concentration: 200 mg/ml, pharmaceutical form:injectable solution
446263	Ambroxol, composition: hydrochloride sal, concentration: 6 mg/ml, pharmaceutical form:syrup
433101	Ceftaroline, composition:fosamila, concentration: 600 mg, pharmaceutical form: powder for extemporaneous preparation
268493	Doxazosin mesylate, composition: 2 mg
313689	Potassium phosphate, composition: monobasic and dibasic, concentration:2 meq/ml, pharmaceutical form: injectable solution
449187	Trometamol, composition: fosfomycin, concentration: 3 g, pharmaceutical form: granules
267666	Furosemide, composition: 10 mg/ml, presentation:injectable solution
342135	Hydrocortisone, composition:sodium succinate sal, concentration: 100 mg, pharmaceutical form: lyophilized powder for injection
342134	Hydrocortisone, composition: sodium succinate sal, concentration: 500 mg, pharmaceutical form: lyophilized powder for injection
328922	Radiological contrast, type: non-ionic, composition:i opamidol-based, concentration: 370 mg of iodine/ml, pharmaceutical form: injectable solution
396568	Micafungin, composition:sodium, concentration: 100 mg, pharmaceutical form: lyophilized powder for injection
305340	Hydrophilic psyllium muciloid, composition: plantago ovata, concentration: 525 mg
268513	Oxacillin, dosage:500 mg, composition: injectable
477912	Pyridoxine, composition:hydrochloride, concentration: 100 mg, additional:specially compounded formulation
448584	Pyridoxine, composition:hydrochloride, concentration: 100 mg
477911	Pyridoxine, composition: hydrochloride, concentration: 40 mg, additional:specially compounded formulation
448582	Pyridoxine, composition: hydrochloride, concentration: 40 mg
448769	Polystyrene sulfonate, composition: calcium, concentration: 900 mg/g, pharmaceutical form:powder for oral suspension
273820	Sildenafil, composition: citrate sal, concentration:25 mg
389863	Sugammadex, composition: sodium sal, concentration: 100 mg/ml, pharmaceutical form: injectable solution
448848	Radiological contrast, composition: barium sulfate-based, concentration: 100%, pharmaceutical form: oral suspension

Source: Prepared by the authors, 2024.

Regarding the completion of "optional characteristics" in the registration of the analyzed medicines, this information was observed in 20 items (5%) standardized at the Institute.

Although there is no guidance in the "Padrão Descritivo de Medicamentos do Ministério da Saúde" regarding the inclusion of the route of administration in the registration of medicines, this information was observed in 33 records (9%), all in accordance with the standardized terminology of the ANVISA controlled vocabulary.

For all 374 medicines analyzed, CATMAT provides a "unit of supply" compatible with the standardized unit at the institution. However, it was observed that 205 items (55%) have more than one compatible unit available in the registration, and 261 items (70%) have at least one unit incompatible with the respective pharmaceutical form.

Discussion

Despite the objective of standardizing CATMAT items, there is still a lack of standardization in item descriptions and incomplete information, which leads to challenges in the use of CATMAT in medicine procurement processes.

Most medicines are registered under the name of the active ingredient approved in the Brazilian Common Denomination (DCB). However, for some items, the adopted description is highly challenging, affecting both the conduct of price research in public procurement portals and the use of item specifications in purchase requests. Some descriptions are overly nonspecific, such as the registration of parenteral nutrition (BR code 457161) or multivitamins (BR code 449107), which are insufficient to describe the item, while others use terms that are uncommon in the market and in health institutions, such as petrolatum (BR codes 233632, 431301, and 394023), used in the registration of mineral oil and solid and liquid petroleum jelly. The use of non-standard market nomenclature may lead to a lack of bids in procurement processes due to suppliers' unfamiliarity, as they may not recognize the item as a medicine they commercialize. The absence of bids may result in a failed bidding process (deserted), and low supplier participation reduces competitiveness and, consequently, the possibility of obtaining better prices.

The lack of information in the registration regarding medicine concentration, pharmaceutical form, and route of administration, even though the first two are considered mandatory fields, prevents the adoption of standardized catalog descriptions, with the risk of incorrect procurement of items. An incorrect purchase, beyond the cost of acquiring an unnecessary medicine, will generate additional public administration expenses related to disposal and may compromise patient care, as patients may not have access to the appropriate medicine.

Although the "Padrão Descritivo de Medicamentos do Ministério da Saúde" does not include guidance on routes of administration, this information is relevant, especially for the correct identification of medicines that share the same active ingredient, concentration, and pharmaceutical form, differing only in route of administration, such as "phytomenadione 10 mg/mL injectable solution for intravenous use" and "phytomenadione 10 mg/mL injectable solution for intramuscular use". For registration purposes, it is also relevant to consider that injectable medicines may vary in other routes of administration, such as subcutaneous, intra-arterial, intracardiac, and/or intrathecal.[16]

The absence of information on the route of administration in the item description requires the use of the same BR code for medicines that are different and therefore have different prices, but are recorded in public procurement systems as if they were the same. The specification of items to be acquired in procurement systems has been a barrier and forces requesters to adapt their requests to the specifications available in the system.[17]

Another challenge is the selection of the mandatory "unit of supply" for medicine acquisition. All items to be acquired have at least one option compatible with the standardized unit at the institution. However, many items have more than one compatible unit available, and the requirement to select only one restricts competition for that item. One example is the acquisition of "filgrastim 30 MU or 300 mcg (total dose per presentation) injectable solution (IV/SC)", whose institutional need could be met with either vial or prefilled syringe presentations. In this case, the mandatory adoption of a single "unit of supply" reduces available options and competitiveness. An-

other similar example is the acquisition of large-volume parenteral electrolyte solutions, such as sodium chloride, glucose, and sodium bicarbonate. For the institution, it is irrelevant whether the solution is supplied in a vial or a bag. However, the requirement to select only one "unit of supply" often leads suppliers to formally question the restriction or acceptance of other units during the bidding process, interfering with its progress. Objections and administrative appeals during the procurement process negatively affect timelines.[18]

It is also observed that, for some items, there is a specific CATMAT code available for acquisition, but the catalog also provides broader descriptive options that could be used. Thus, the same item may be acquired under different codes. An example is the acquisition of the standardized item "Iopamidol 370 mg/mL. Injectable solution (IA/IT/IV). Vial 50 mL", which can be procured using a specific registration such as "Radiological contrast, Type: Non-ionic, Composition: Iopamidol-based, Concentration: 370 mg iodine/mL, Pharmaceutical form: Injectable solution" (BR code 328922) or a broader description such as "Radiological contrast, Type: Non-ionic low-osmolar, Concentration: 350 to 370 mg iodine/mL, Pharmaceutical form: Injectable solution" (BR code 342903). Both registrations may be used, compromising the objective of item standardization to integrate procurement data under a single code. Purchases of the same item using different codes disperse procurement records across the system, affecting price estimation research. Furthermore, the use of generic codes for item registration is discouraged by oversight bodies.[10]

Regarding the "unit of supply" field, the presence of units incompatible with the registered pharmaceutical form, observed in 55% of the registered items (205 items), may generate uncertainty and lead to errors in selecting the appropriate unit.

Conclusions

This study aimed to analyze the registration of items in the medicines class of CATMAT, from the perspective of a Federal Institute of Infectology in Rio de Janeiro, and to discuss the challenges for its application in the acquisition of medicines within the Unified Health System (UHS).

Despite efforts to catalog and standardize the medicines acquired by the Public Administration, the results of this study show that there is still a lack of standardization in the registration descriptions and incomplete information for active items in the class "6505 , Drugs and medicines" of CATMAT, which compromise the objective of cataloging.

The promotion of the rational use of medicines in the UHS and the efficient use of public resources begins with the proper description of the items to be procured. Additionally, accurate information on prices practiced ensures transparency for society, managers, policymakers, and oversight bodies, representing an essential action to expand access to medicines in the UHS, as it enables the optimization of available financial resources.

As the UHS becomes more consolidated, it is essential to improve the availability of information that enables each user of the system to fulfill their social role. Despite the limitations of this study, restricted to the medicines standardized at the evaluated institute, it is expected that the presented results may encourage the review of catalog descriptions, with the adoption of standardization that includes necessary information aligned with the nomenclature already standardized by the country's medicines regulatory agency, in order to optimize public procurement of medicines for the UHS.

Author contributions and authorship statement
All authors contributed to the conception, analysis, and interpretation of the data, drafting of the article, critical revision, and final approval of the version to be published, and are responsible for all aspects of the work in ensuring the accuracy and integrity of any part of the manuscript.

Conflicts of interest
The authors declare no conflicts of interest.

Funding
This article received no funding.

Declaration and availability of data
The data underlying the research text are contained within the manuscript.

Responsible editor
Lindemberg Assunção Costa

References

1. Brasil. [Constituição (1988)]. Constituição da República Federativa do Brasil de 1988 [Internet]. Brasília, DF: Presidência da República; 1988 [cited 2025 Feb 26]. Available from: https://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm
2. Brasil. Lei n.º 8.080, de 19 de setembro de 1990. Dispõe sobre as condições para a promoção, proteção e recuperação da saúde, a organização e o funcionamento dos serviços correspondentes e dá outras providências [Internet]. Brasília, DF: Presidência da República; 1990 [cited 2025 Feb 26]. Available from: https://www.planalto.gov.br/ccivil_03/leis/l8080.htm
3. Brasil. Conselho Nacional de Saúde. Resolução nº 338, de 06 de maio de 2004. Aprova a Política Nacional de Assistência Farmacêutica [Internet]. Brasília, DF: Conselho Nacional de Saúde; 2004 [cited 2025 Dec 12]. Available from: https://bvsms.saude.gov.br/bvs/saudelegis/cns/2004/res0338_06_05_2004.html
4. Brasil. Ministério da Saúde. Portaria nº 3.916, de 30 de outubro de 1998. Aprova a Política Nacional de Medicamentos, cuja íntegra consta no anexo desta portaria [Internet]. Brasília, DF: Ministério da Saúde; 1998 [cited 2025 Dec 12]. Available from: https://bvsms.saude.gov.br/bvs/saudelegis/gm/1998/prt3916_30_10_1998.html
5. Marin N, Luiza VL, Osório-de-Castro CGS, Machado-dos-Santos S. Assistência farmacêutica para gerentes municipais. Rio de Janeiro: Organização Pan-Americana da Saúde; 2003.
6. Brasil. Lei nº 14.133, de 1º de abril de 2021. Lei de Licitações e Contratos Administrativos [Internet]. Diário Oficial da União. 2021 Apr 1 [cited 2025 Feb 26]. Available from: https://www.planalto.gov.br/ccivil_03/_ato2019-2022/2021/lei/l14133.htm
7. Reis PRDC, Cabral S. Para além dos preços contratados: fatores determinantes da celeridade nas entregas de compras públicas eletrônicas. Rev Adm Pública. 2018;52(1):107-125.
8. Brasil. Ministério da Saúde. Secretaria-Executiva. Departamento de Economia da Saúde, Investimentos e Desenvolvimento. Manual de consulta: Itens de Saúde Catmat/Siasg [Internet]. Brasília: Ministério da Saúde; 2017 [cited 2025 Feb 26]. Available from: https://www.gov.br/saude/pt-br/composicao/sectics/daf/cbaf/repasse/publicacoes/manual-de-consulta-itens-de-saude-catmat-siasg/view
9. Mattos FJA, Pontes AT, Gutierrez RH. Classificação e catalogação de materiais, uma metodologia essencial na gestão empresarial. Braz J Dev. 2018;4(2):384-395.
10. Brasil. Ministério da Saúde. Secretaria-Executiva. Departamento de Economia da Saúde, Investimento e Desenvolvimento. A catalogação de materiais como ferramenta de gestão em saúde: aspectos normativos [Internet]. Brasília: Ministério da Saúde; 2021 [cited 2025 Feb 26]. Available from: https://bvsms.saude.gov.br/bvs/publicacoes/catalogacao_materiais_ferramenta_gestao_saude.pdf
11. Brasil. Secretaria Especial de Desburocratização, Gestão e Governo Digital, Secretaria de Gestão Pública. CATSER – Catálogo de Serviços & CATMAT – Catálogo de Materiais. Versão 1 [Internet]. Brasília: Ministério da Economia; 2020 [cited 2025 Feb 26]. Available from: https://www.gov.br/compras/pt-br/acesso-a-informacao/manuais/manual-fase-interna/manual-catmat-catser/manual-catmat-e-catser-2020.pdf
12. Brasil. Ministério da Saúde. Secretaria-Executiva. Subsecretaria de Assuntos Administrativos. Padrão Descritivo de Medicamentos [Internet]. [cited 2025 Feb 26]. Available from: https://bvsms.saude.gov.br/bvs/publicacoes/padrao_descritivo_medicamentos_saude_2ed.pdf
13. Gil AC. Como elaborar projetos de pesquisa. 6ª ed. São Paulo: Atlas; 2017.
14. Brasil. Agência Nacional de Vigilância Sanitária (ANVISA). Vocabulário Controlado de Formas Farmacêuticas, Vias de Administração e Embalagens de Medicamentos [Internet]. Brasília: ANVISA; 2011 [cited 2025 Feb 26]. Available from: https://www.gov.br/anvisa/pt-br/centrais-de-conteudo/publicacoes/medicamentos/publicacoes-sobre-medicamentos/vocabulario-controlado.pdf
15. Agência Nacional de Vigilância Sanitária (ANVISA). DCB - Denominações Comuns Brasilei-

ras [Internet]. Brasília: ANVISA; 2025 [cited 2025 Feb 27]. Available from: https://www.gov.br/anvisa/pt-br/assuntos/farmacopeia/dcb

16. De Oliveira DC, Veloso JC, Camargo EES. Abordagem sucinta sobre a importância da escolha correta da via de administração de medicamentos. Revista Saberes da UNIJIPA. 2019;13(2):105-113.
17. Almeida AAMD, Sano H. Função compras no setor público: desafios para o alcance da celeridade dos pregões eletrônicos. Rev Adm Pública. 2018;52(1):89-106.
18. Gonçalves MDS, Figueiredo PS. Determinantes dos prazos das compras públicas por meio de pregão eletrônico. Cad Gest Pública Cid [Internet]. 2023;28:e85792. Available from: https://www.scielo.br/j/cgpc/a/rzRpJZYBP8C5s9yz8dXtQbL/?format=pdf&lang=pt