

Národní organizace pro ověřování pravosti léčiv



ANNUAL REPORT

National Medicines Verification Organization



AN OPENING WORD

The year 2020 will forever be remembered as the year of the coronavirus crisis, which affected society as a whole, but most of all those who were in regular contact with patients actually or potentially infected with SARS-CoV-2, i.e. all healthcare professionals and pharmacists. The verification of medicines continued despite all the obstacles caused by COVID-19. All the essentials of the correct process stipulated in legislation were fulfilled, but in order to ensure the availability of medicines in this difficult epidemiological situation, it was possible to dispense them to patients even if their authenticity could not be successfully verified, i.e. after an alert was generated.

A big thank-you goes to the pharmaceutical companies, marketing authorization holders (MAHs), that, in a very short time, developed and prepared for approval effective vaccines and promising medicines against COVID-19 and actively participated in educational campaigns. All crises pose an increased safety risk. This is also true about the risk of falsified medicines entering the European market. Some falsified vaccines against the SARS-CoV-2 infection have already been seized. Thus, the Falsified Medicines Directive (DIRECTIVE 2011/62/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011; hereinafter as the FMD) is still needed and justified even two years after it came into effect. Compliance with the FMD effectively protects Czech patients.

In 2020, the National Medicines Verification Organization (NOOL) stabilized the systems and searched for activities that would reduce the number of generated false alerts, for which the unique identifier on the packs of medicinal products could not be verified against data in the system. During the year 2020, the National Medicines Verification System (NSOL) as well as the follow-up systems were modified based on the experience from the first year's live operation: errors were eliminated and minor inaccuracies in settings were debugged. NOOL also focused on improving the Alert Management System (AMS) and all processes related to handling alerts generated both on the part of marketing authorization holders (MAHs) and end-users (pharmacies, distributors). The AMS enables direct two-way anonymous communication between a pharmacy and an MAH during the investigation of an alert, without the need to involve the NOOL support center, which speeds up the investigation of alerts. The AMS removes the language barrier in communication between an MAH and a pharmacy.

The Alert Management Center closely worked with marketing authorization holders and NSOL end-users in training, providing additional information and cooperating in handling alerts. Communication was mainly targeted at specialized pharmaceutical media to provide them with factual reports concerning changes and settings of the AMS.





Mgr. Jakub DVOŘÁČEK, MHA, LL.M. Chairman of the Board of Directors Thanks to the "extended transitional period" for dispensing medicines despite alerts, all entities in the Czech Republic that are obliged to verify the authenticity of medicines based on the FMD had the opportunity to further practice the verification of medicines and to reduce the number of errors caused by unfamiliarity with the processes.

It can be considered a great success that the number of alerts in 2020 was stabilized at 0.05%, which places the Czech Republic - with 100% of the connected end-users – among the European elite. European data and comparisons are taken from regular reports of the European Medicines Verification Organization (EMVO).

We would like to thank all those who participated in the successful implementation of the FMD in this difficult year.



Mgr. Martin MÁTL Vice-Chairman of the Board of Directors

TABLE OF CONTENTS

An Opening Word	2	
Table of Contents	4	
About the National Medicines Verification Organization (NOOL)	5	
Member Companies	6	
Associated Companies	6	
Organizational Structure	7	
NOOL's Team in 2020	8	
Activities in 2020	9	
The FMD's State as of the End of 2020	12	
Communication	16	
Financial Management Report	18	
Independent Auditor's Report	19	
Contact and Identification Data	20	

ABOUT THE NATIONAL MEDICINES VERIFICATION ORGANIZATION (NOOL)

Národní organizace pro ověřování pravosti léčiv, z. s. (National Medicines Verification Organization (NOOL) was founded in March 2017 by the following regular founding members:

- AEDL Asociace evropských distributorů léčiv (Association of European Distributors of Pharmaceuticals);
- AIFP Asociace inovativního farmaceutického průmyslu (Association of Innovative Pharmaceutical Industry);
- AVEL Asociace velkodistributorů léčiv (Association of Wholesale Distributors of Pharmaceuticals);
- ČAFF Česká asociace farmaceutických firem (Czech Association of Pharmaceutical Companies);
- ČLnK Česká lékárnická komora (Czech Chamber of Pharmacists).

NOOL is a national non-profit legal entity founded in compliance with Directive 2011/62/EU of the European Parliament and of the Council of 8 June 2011 and Commission Delegated Regulation (EU) 2016/161 of 2 October 2015. Directive 2011/62/EU amends Directive 2001/83/EC on the Community code relating to medicinal products for human use, as regards the prevention of the entry into the legal supply chain of falsified medicinal products. Regulation 2016/161 supplements Directive 2001/83/EC of the European Parliament and of the Council by laying down detailed rules for the safety features appearing on the packaging of prescription-only medicinal products for human use.

NOOL was founded to protect the legal supply chain against falsified medicinal products by creating and managing the regional data repository – the National Medicines Verification System (NSOL). The NOOL's goal is to coordinate collaboration among its members, NSOL users and competent entities and authorities in implementing the Falsified Medicines Directive (FMD). Associated members:

- Apatyka Servis;
- Asociace provozovatelů lékárenských sítí (Association of Pharmacy Chain Operators);
- GS1 Česká republika;
- Lekis;
- PharmaSwiss;
- Poskytovatelé lékárenské péče (Pharmaceutical Care Providers);,
- Avenier;
- Cyrmex;
- Unie distributorů léčiv (Union of Medicines Distributors).

The regular member companies regularly met via their representatives in the NOOL's Board of Directors and General Meeting and helped to supervise the implementation of the FMD in the Czech Republic.

NOOL's activities are described in detail in the following chapters.

In 2020, NOOL also closely collaborated with the State Institute for Drug Control (SÚKL), the Ministry of Health of the Czech Republic, the European Medicines Verification Organization (EMVO) and other stakeholders.

MEMBER COMPANIES











AFFILIATED COMPANIES









Pharmacy Software

a PHOENIX company









Unie distributorů léčiv

(Union of Pharmaceutical Distributors)

ORGANIZATION S



TRUCTURE
MBLY
CTORS
E R ŠTISOVÁ
ALERTS INVESTIGATIONS & ANALYSES Lukáš LEGIN
ADMIN SUPPORT – REGISTRATIONS/MAH Barbora KŠÁNOVÁ / Jan BENDL
QUALITY & REPORTING MANAGER Daniel SEDLÁČEK
Expert group

Teams of Experts

NATIONAL MEDICINES **VERIFICATION ORGANIZATION TEAM IN 2020**



Pavlína Štisová, MBA



Ing. Lenka Navrátilová



Ing. Daniel Sedláček



Ing. Libor Svatoň



Barbora Kšánová



Bc. Jan Bendl



Lukáš Legin Alerts investigations & Analyses

ACTIVITIES IN 2020

The year 2020 can be characterized as a year of searching for the right solutions to surprising and complex problems. For NOOL, it was rather about learning and setting up cooperation with all entities involved in the verification of medicines, handling and reducing the number



NOOL's main activities in 2020 focused in particular on stabilizing processes and handling alerts in the case that medicinal products could not be successfully verified, although the transitional period continued during the entire year and it was possible to dispense medicines

THE MOST IMPORTANT ACTIVITIES INCLUDE IN PARTICULAR:

The modifications and development of the National 1 Medicines Verification System in cooperation with its provider Solidsoft Reply and other countries using the system of the same provider.

Cooperation and intensive communication with 2 providers of end-user IT systems regarding updates, changes and partial modifications before their planned implementation in the NMVS.

Daily contacts and cooperation with pharmacists, 3 distributors and marketing authorization holders concerning anti-falsification legislation; sharing best practices and experiences in investigating alert causes as well as preventive measures to reduce the number of alerts.



of alerts generated during verification and in particular about improving the Alert Management System (AMS) developed and managed by NOOL. NOOL also modified and improved the National Medicines Verification System and cooperated within European anti-counterfeiting structures.

even if an alert was generated. These activities also included the development and modification of the NOOL Alert Management System (AMS), which is extremely useful for communication support and for identifying alert causes.

- Setting up the process of implementation of 4 changes and relevant structures in the entire European Medicines Verification System (EMVS) in cooperation with other countries using Solidsoft Reply, Arvato and European HUB systems.
- Informing and educating NSOL end-users 5 (pharmacists and distributors) about the Alert Management System and the benefits of using the AMS in handling alerts generated during the verification of medicines; direct contact and education through the NOOL support team.
- Cooperation, within European structures, with other 6 countries using the same NMVS provider and with other EU Member States, as well as coordination of activities with the EMVO.

Monitoring the trend of error messages (alerts) from NSOL and searching for false alert causes and for ways to prevent false alerts. These longterm activities made it possible to reduce the percentage of error messages from almost 0.4% at the beginning of 2020 to less than 0.05% during the last months of 2020, which also led to the decision of the Ministry of Health of the Czech Republic to abolish the possibility to dispense medicines that were not successfully verified.

The NOOL Alert Management System is a unique solution that ensures the maximum automated processing and exchange of data information, i.e. it provides end-users and marketing authorization holders (MAHs) with the following benefits:

- immediate access to the current status of alerts;
- a simplified and completely anonymous exchange of messages among MAHs, the NOOL and end-users (i.e. the establishment, the place where the alert originated);
- the possibility to detect and change the status of alerts automatically or manually;
- data integration with MAH and end-user • applications.

Communication with the Ministry of Health of the Czech Republic and the State Institute for Drug Control and continuous provision of current information, including monitoring the functioning of NSOL using the NOOL's website www.czmvo.cz.

Regular meetings of the members of the NOOL Board of Directors and two General Meetings.

The National Medicines Verification Organization investigates, through the AMS, alert causes and closes alerts in cooperation with both MAHs and end-users. The AMS also makes it possible to detect and signalize a too slow response or the absence of activity in handling alerts, and thus the impending unnecessary return of medicines from pharmacies to distribution. The challenge for the year 2021 is to train both MAHs and end-users as much as possible in order to reduce the number of error messages and to streamline the handling of generated alerts caused by errors on the part of MAHs, pharmacists or distribution personnel.

All-European monitoring, which is regularly provided by the EMVO, shows that the Czech Republic successfully implemented the FMD in 2020 as well. The Czech Republic has long been one of the best countries in terms of activity, i.e. the number of verifications (transactions) in relation to its market size, as well as in terms of the number of alerts and their percentage on the total number of transactions, which keeps decreasing.



9

The NOOL Alert Management System was expanded in 2020 thanks to several releases of new functionalities, which mainly include:

Release 2.0 - 3/2020

- Access and management of users and their roles and management of organizations;
- **Design modifications and the option to export** to xlsx;
- "Error Code");
- "Anonymous groups" have been created (alerts generated by the same end-user are grouped);
- **New statuses** have been added ("Probably End-User's Error", "NMVS's Error");
- group;
- The code list of messages sent by end-users to MAHs has been expanded with other options from to end-users ("Message with Uploaded Attachment - No Activity of End-User Is Required").

Release 2.1 – 4/2020

• The option to also include files from central administration – alert.czmvo.cz

Release 2.2 - 8/2020

- to the MAH's e-mail address. The same applies to a group response;
- Corrections and additions in messages and filters;
- Reports for individual AMS users based on access rights that include a complete report on a detail in the the last change.

The alert display has been expanded with new details ("Manual Entry", "Note", "Expiration Date",

Activities now include Data Import - mass update, uploading of attachments to an alert and an alert

practice ("Dispensed to the Patient - No Proof," "Confirmed End-User Error") and vice versa from MAHs

The support team's response is recorded in the case that the end-user requests the MAH's cooperation: the support team enters the end-user's e-mail response in the text field and an e-mail with the text is sent

alert or alert groups, a report of the audit log by the alert, a summary report for the given period or since

THE FMD'S STATE AS OF THE **END OF 2020**



MARKETING AUTHORIZATION HOLDERS (MAHS) Number of MAHs registered to use the NMVS: **360** Of this, the number of MAHs eligible for a reduced user fee: **58**



NMVS END-USERS (PHARMACIES AND DISTRIBUTORS)

1 565 registration contracts with legal entities. **3 204** total establishments connected to the NMVS. Of this: Pharmacies: **2 767** (100 %) – including **116** hospital pharmacies (100 %) Warehouse - distributors' locations where medicines are verified: 437



PRODUCT DATA IN THE NMVS

8 767 products entered in the EU HUB and NSOL Number of packs with data uploaded in the NSOL as of 31 December 2020: **412 145 529**



TRANSACTIONS IN NSOL

There were about **8.5 million** transactions per week. Of this, **3.3 million** packs were verified on average and marked as dispensed. During the first week of 2020, alerts amounted to 0.28% of all transactions; they dropped to 0.04% in the 51st week of 2020.

Count of alerts in relation to the count of transactions in NSOL (% of alerts) period 01/2020-12/2020



Trend (Percentage of alerts in relation to the count of transactions (excluding A1))

ALERTS GENERATED DURING AN UNSUCCESSFUL VERIFICATION **OF MEDICINES**

Count of closed / open alerts for 2020					
Alert status	Sum				
Open Closed	52 048 380 166				
Total	432 214				

During 2020, a total of **432 214** alerts were generated, which represented only **42%** compared to 2019. (The number of alerts includes all alerts per pack - the same serial number - several alerts are often generated, i.e. the number of packs is much lower.)

In 2020, it was still possible in the Czech Republic to dispense prescription-only medicines to patients, even if an alert was generated; at the request of the State Institute for Drug Control, all alerts generated in 2020 had to be checked and closed. This was primarily done in the NOOL Alert Management System, where all alerts are registered. As of 31 December 2020, **88.33%** of all alerts were investigated and closed.



During the year 2020, alerts were closed retrospectively even for the previous year. During the last month of 2020, alerts were most often checked and closed within six days of their generation; the average time required to resolve an alert was 4.14 days. A total of **97.3%** of alerts closed in December were resolved within 14 days, which is the time-limit for the so-called medicines quarantine stipulated in the Medicines Act, during which it is possible to search for and eliminate alert causes.



The investigation of the reasons for a failed verification of medicinal products showed that:

- 30.2% of the closed alerts were caused by correctable errors made and removed by MAHs;
- **41.98%** of the closed alerts concerned medicinal products that were granted an **exemption** by the Ministry under which medicinal products can be dispensed to patients in spite of incompliance with the FMD;
- less than **1%** of the alerts were closed due **to uncorrectable errors** made by **MAHs**;
- end-users' errors amounted to 22.1%, of which 89% of errors were made in pharmacies and 11% in distribution:
- 2.8% of the closed alerts were confirmed by MAHs as medicines released from production before 9 February 2019.



THE KEY ACTIVITIES OF THE SUPPORT CENTER INVOLVED:

- Handling inquiries about the processes related to "anti-counterfeiting legislation" and the Alert Management System (the creation of the AMS, intermarket operations, procedures for handling different types of alerts);
- NMVOs:
- · Provision of additional information about the cause of alerts from end-users communicated with pharmacies, the FMD).

IN 2020, THE SUPPORT TEAM HANDLED:

2000 phone calls

- primarily with

pharmacies

1263 requests in the AMS

- end-users' feedback communicated to MAHs

e-mail communications and investigation assistance

of Health of the Czech Republic (according to Section 11r of the Medicines Act), which stipulates the conditions

1-1C: % SHARE OF CAUSES FOR CLOSED ALERTS

Closed – MAH error – exception of Ministry of Health

Closed – MAH error – fixed

Closed – technical end user error

Closed – before 9, 2, 2019

• Alert investigation requests of MAHs, verified audit trails and communicated with Solidsoft Reply and other

confirmed the cause of alerts and educated end-users in order to eliminate alerts (software and scanner settings, checking the status of medicines in the system, correct procedures in handling medicines in compliance with

5920

over 100 th. manually closed alerts at MAHs' request



COMMUNICATION

The communication platform was also affected by the COVID-19 pandemic, the public (professionals and nonprofessionals) focused almost entirely on the pandemic and its unsuccessful/successful handling. This is why we targeted exclusively professional media to provide pharmacists with key information about ongoing changes.

After the February press conference held in person on the first anniversary of the FMD, we exclusively communicated electronically (with the exception of June and July when we held personal meetings with media representatives). We regularly prepared and updated crisis communication documents.

Target media: Praktické lékárenství, Sortiment, PharmaProfit, Medical Tribune, lekarnici.cz - they cover 100% of pharmacies and distributors.

January 2020

Graphical design of the verification system - for the NOOL's press release on the first anniversary of the FMD, preparation of the press conference.

February 2020

Press conference on the first anniversary of the FMD (Participants: Mgr. Storová, Mgr. Dvořáček, Mgr. Mátl, PharmDr. Kopecký).

Outputs: Medical Tribune (print and web), Apatykář, TevaPoint, PharmaProfit, Sortiment.

March-April 2020

Campaign - advertising: "Are you sure that you and your scanner are able to verify medicines?"

Medical Tribune web, PharmaProfit, Sortiment.

May-September 2020

Campaign "A Message for IT" (about a new release)

TevaPoint, PharmaProfit, Sortiment.

October 2020

A key interview (Face to face on the cover page) with Pavlína Štisová in PharmaProfit.



October-December 2020

Campaign - "The quarantine will be over one day, connect to the AMS (API)" PharmaProfit, Sortiment, Praktické lékárenství, TevaPoint.

November 2020

Medical Tribune – An interview with Mgr. Dvořáček on vaccines (and verification)

An interview with Ing. Rohrbacher (the FMD did not complicate distribution)

December 2020

Crisis communication preparation - the transitional period ended.

FINANCIAL MANAGEMENT REPORT

The National Medicines Verification Organization is financed from several sources:

- Membership fees of the founding members;
- Registration and user fees from every MAH using the medicines verification system.

NOOL continues to be financed only by registration fees (in the case of new registered MAHs) and user fees charged for using the NMVS in the given year. In 2020, the NMVO paid off the loan, including interest, provided by AIFP.

Selected data from the financial statements (in thousands of CZK)

Revenues in 2020		Expenses in 2020	
Received membership fees	50	Purchases including services – Materials and energy consumption	37 987 271
Registration fees	2 950	– Purchased services	37 716
User fees	51 772	Personnel costs	6 082
Other revenues (including foreign excha	2 034 nge gains: 2 029)	Taxes and fees	0
(Other expenses	1 447
Total revenues	56 806	Depreciation	334
		Income tax	1 918
		Total expenses	47 768

The full version of the financial statement is available in the Collection of Deeds of the Associations Register kept by the Municipal Court in Prague, Section L, Insert 67982.

Profit after tax in 2020 amounted to 9 037 597.81 CZK.

Profit after tax in 2019 = 20 590 912.29 CZK was distributed as follows:

- 4 321 092.50 CZK were used for additions to the Future Risks Fund in compliance with the Statute;
- The remaining profit was kept as retained profit from 2019 to be used in the future.

INDEPENDENT AUDITOR'S REPORT

THE AUDITOR'S OPINION: UNQUALIFIED OPINION

We have audited the attached financial statements of Národní organizace pro ověřování pravosti léčiv, z. s. (hereinafter also as the "Association") that were prepared in compliance with Czech accounting regulations and consist of the balance sheet for the year ended 31 December 2020, the profit and loss account for the year ended 31 December 2020 and the annex to these financial statements, which contains a description of the used major accounting methods and other explanatory information. Details about the Association are provided in the annex to these financial statements.

In our opinion, the financial statements provide a true and fair picture of the assets and liabilities of Národní organizace pro ověřování pravosti léčiv, z. s. as of 31 December 2020 as well as of its expenses, revenues and profit (loss) for the year ended 31 December 2020 in compliance with Czech accounting regulations.



Č.j.:20018/110/2

Dále isme povinni uvést, zda na základě poznatků a povědomí o Spolku, k nimž jsme dospěli opri provádění auditu, ostatní informace neobsahují významné (materiální) věcné nesprávnosti. V rámci uvedených postupů jsme v obdržených ostatních informacích žádné významné (materiální) věné nesprávnosti nezištíli.

Obporédnost představenstva Spolku za účetní závřsku Představenstvo Spolku odpovidá za sestavení účetní závětky podávající věrný a pocitvý obraz v soudud s češkují účetním j ředpisy, a za takový vnitníh kontrolní systém, který považuje za nezbytný pro sestavení účetní závětky tak, aby neobsahovala významné (materiální) neprivnosti zájskober jedvidem nebo čnybou.

Při sestavování účetní závětky je představenstvo Spolku povinen posoudit, zda je Spolek schopen nepřetržile trvat, a pokud je to relevantní, popsat v přiloze účetní závěty zaličitosti účetní závětky, s výjimkou připadů, kdy představenstvo plánnje zračení Spolka nebo ukočení jeho čimosti, reps, kdy menní jinou relahou nohrost nel tak učiní.

Odpovědnost auditora za audit účetní závěrky Natím cílem je získat přiměřenou jistotu, že účetní závěrka jako celek neobsahuje výz

Natim cilem je zrislan přimětenou jistotu, že účetní zivětka jako celek neobanluje významnou intencisláh) neprejtvost zploubomo podvodem nebo cybou a vydatu zprávu sudilnou ishankujicí náš výrsk. Přimětené nimi jistoty je velká mítn jistoty, niceméh není zárkosu, že unáli přovedený v souladu a výše uvedenými předpisy ve vésch připatekt v účetní zivřese ná diale předpadu cesistující významoso (materiáhn) nepreivosti. Nesperivosti mebou vzmlat dialežka podvodů nebo cítyb a povadůje za vyžnamed junteriáhn), pokud ize relaži telepákkdat, že by jednotívě nebo v souhram meby ovlivní čekonenícká terohodnat, kteře věrky na jejím základě přijmou

Při provádění auditu v souladu s výše uvedenými předpisy je naší povit během celého auditu odborný úsudek a zachovávat profesní skepticism

 Identifikovat a vyhodnotit rizika významné (materiální) nespr teentilikevat a vyhodotoiti riilka významol (materiální) negrelvonosti účetní zivétvky pralovbené podvoden nebo dybou, navrhnout a provisť auditorké postupy reaujúli na tako rizika a ziskat dostatečné a vhodné dikazní informace, abychom na jejich základě došlo v disledku podvoda, je větší než riziko neodhalim významné (materiální) nesprisrosti zpišachené chybou, protože součástí podvádu mohou být tajid dohody (kolaze), látivní, ámyslan opomenál, negradvíža proklášení abo doklazel vádhažení vížníkať, dostave slavenski, protože součástí podvádu mohou být tajid dohody (kolaze), látivníka, imyslan opomenál, negradvíža proklášení abo doklazel vádhažení vížníkať.

Seznámit se s vnithním kontrolním systémem Spolšu relevantním pro audit v takovém rozahu, abychom mohli navrhnout auditorské postupy vhodné s obledem na dané okolnosti, nikoli abychom mohli vyjádřit názor na účinnost jejího vnithního kontrolního systému.

systemini Sidlo: 17. listopadu 237 • 530 02 Pardubice • telefon: 406 511 696 • mobil: 603 502 602 Społebrosti je zapadna v OR u Krajského soudu v Hradci Králové, oddi C., vložka 16020 IČ: 259 37 332 • DIČ: GZ25907332 • Oprávnění KAČR č. 349 • e-mail: aduko@aduko.cz • www. 020 2





CONTACT AND IDENTIFICATION INFORMATION

NÁRODNÍ ORGANIZACE PRO OVĚŘOVÁNÍ PRAVOSTI LÉČIV, z. s.

Address: Pobřežní 620/3, 186 00 Praha 8

IN: 05851742 TIN: CZ05851742

Web: www.czmvo.cz E-mail: info@czmvo.cz Tel.: +420 224 834 153

Národní organizace pro ověřování pravosti léčiv, z. s. entered into the Federal Register kept by the Municipal Court in Prague, Section L, file 67982



