

# COMPARATIVE EVALUATION OF FOUR CLASSIFICATION SYSTEMS FOR DOCUMENTING CLINICAL PHARMACIST INTERVENTIONS

András Szilvay<sup>1</sup>, Andrea Bor<sup>1</sup>, Ármin László Kiss<sup>1</sup>, Eszter Erika Nagy<sup>1</sup>, Nóra Gyimesi<sup>1</sup>

<sup>1</sup>Hospital Pharmacy Department, Dr. Manninger Jenő Trauma Center, Budapest, Hungary; szilvay.andras@obsi.hu

## INTRODUCTION

Standardized documentation of clinical **pharmacist interventions (PIs)** is essential for demonstrating clinical and organizational value, but multiple classification systems exist and cross-system evidence is limited. Choosing an appropriate tool is a necessary first step before nationwide implementation.

## OBJECTIVE

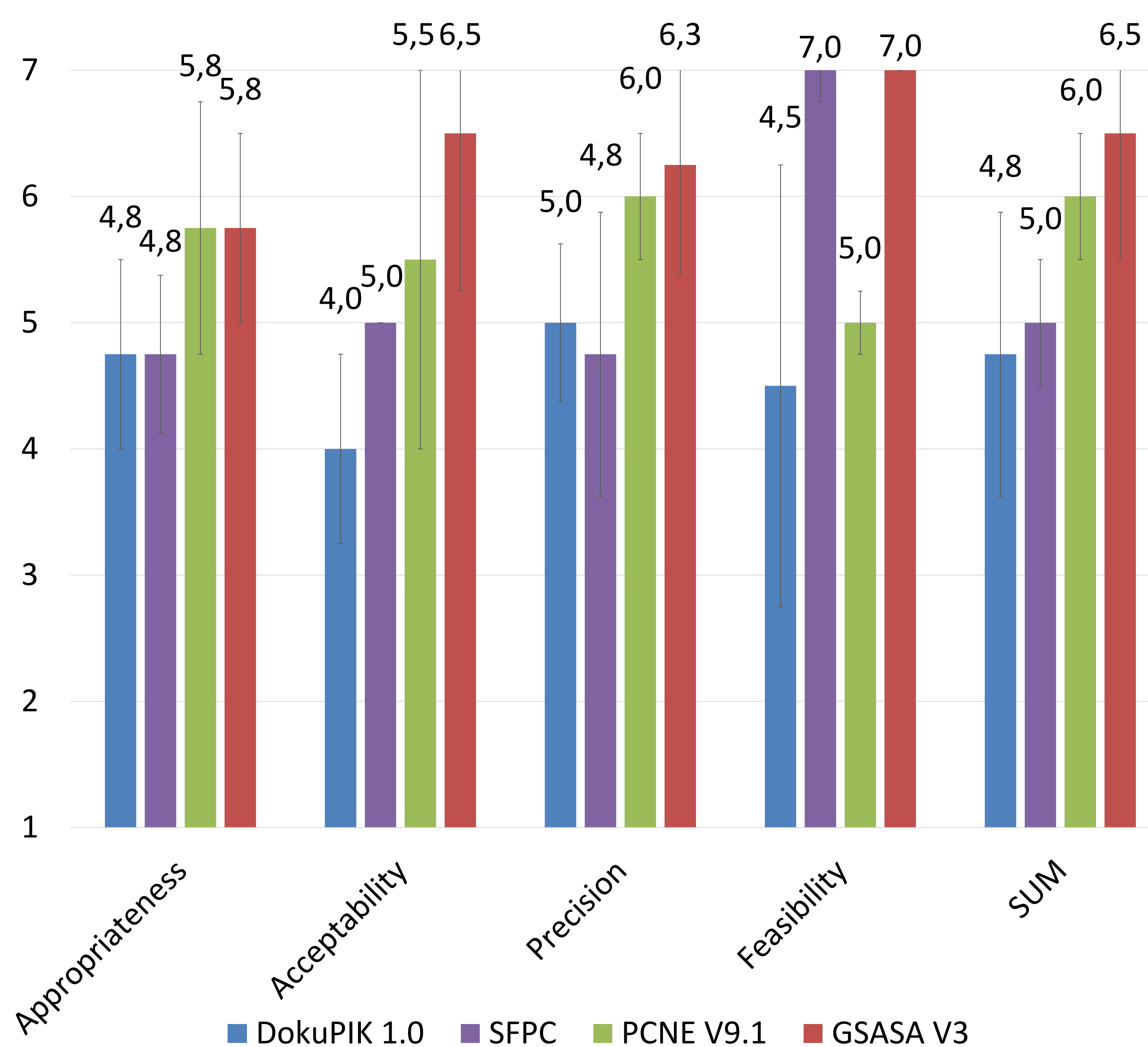
The goal of the study was to compare four validated PI classification systems: **DokuPIK 1.0** (Germany), **GSASA V3** (Switzerland), **PCNE V9.1** (International) and **SFPC** (France) [1-4] in hospital setting using structured user evaluation and inter-rater reliability testing, with the aim of identifying the most suitable system for national adaptation.

## METHODS

A prospective, single-center pilot study was conducted at a tertiary trauma center. Four clinical pharmacists recorded PIs on seven inpatient wards using the English translation of each classification system (*see QR Codes below*) in two-week randomized rotations. System performance was evaluated with an 18-item validation questionnaire (16 items on a 7-point Likert scale covering appropriateness, acceptability, precision, and feasibility, plus 2 open questions). Inter-rater reliability was assessed using Fleiss' kappa on 10 standardized cases.

## RESULTS

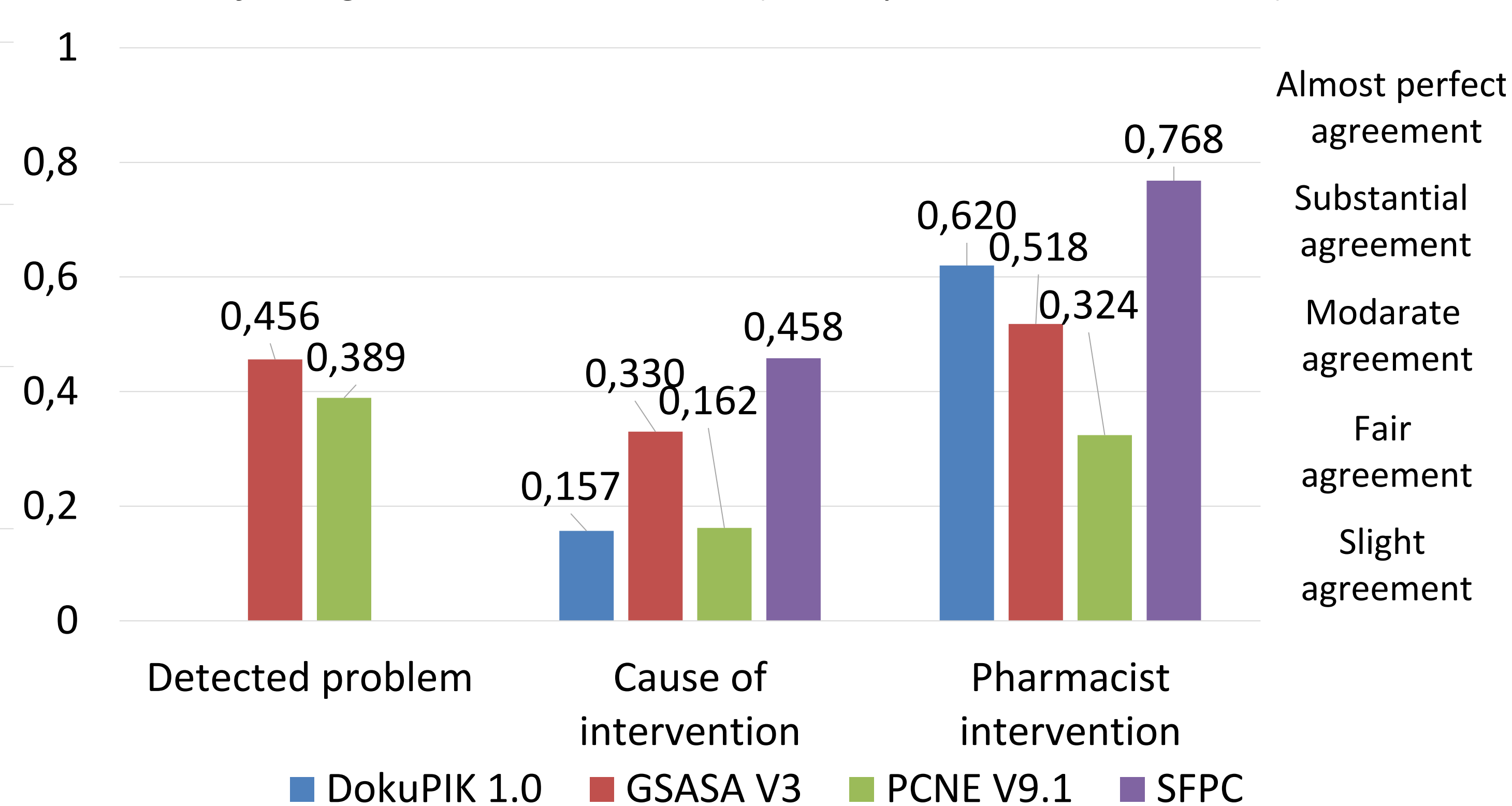
A total of **577 PIs** were documented (144 PIs/pharmacist). The **GSASA V3** classification system received the highest median score overall and in all dimensions examined (*Figure 1*), followed by PCNE V9.1, SFPC, and DokuPIK 1.0. Based on the inter-rater reliability analysis of the classification systems, an inverse correlation was observed between the number of subdomains (*Table 1*) and the Fleiss' kappa values (*Figure 2*).



**Figure 1.** Median and interquartile range (IQR) of responses to the validation questionnaire, by category and overall (7-point Likert scale; n=4).

Classification system	Detected problem	Cause of intervention	Pharmacist intervention
DokuPIK 1.0	-	26*	10*
GSASA V3	7	26	12
PCNE V9.1	6	38*	17*
SFPC	-	10	7

**Table 1.** Comparison of the classification systems according to the number of categorization subdomains (\*multiple selections allowed)



**Figure 2.** Comparison of inter-rater reliability (Fleiss' kappa) across categorization domains by classification system. DokuPIK 1.0 and SFPC do not include a separate „Detected problem” category (n=4).

## CONCLUSIONS

In this pilot comparison, **GSASA V3** showed better overall performance than three other validated pharmacist intervention classification systems, with superior usability and acceptable inter-rater reliability. Further steps, including precise translation, local adaptation, multicenter validation, and electronic integration, are currently underway prior to nationwide implementation.

### References:

- [1] <https://www.adka-dokupik.de/> Accessed: 31.07.2024.
- [2] <https://www.gsasa.ch/de/aktivitaeten/21100?oid=40221&lang=de>. Accessed: 17.02.2026.
- [3] [https://pcne.org/wp-content/uploads/2026/01/PCNE\\_classification\\_V9-1-en-2026.pdf](https://pcne.org/wp-content/uploads/2026/01/PCNE_classification_V9-1-en-2026.pdf). Accessed: 17.02.2026.
- [4] <https://actip.sfpc.eu/descriptif/> Accessed: 31.02.2026.

### 4CPS-170



Budapesti Dr. Manninger Jenő Baleseti Központ

H-1081 Budapest, Fiumei út 17.  
Telefon: +36 1 2997700



DokuPIK 1.0 [1]



GSASA V3 [2]



PCNE V9.1 [3]



SFPC [4]

