

## 2030 in perspective: Medication Therapy Management in Community Pharmacy

75TH FIP WORLD CONGRESS OF PHARMACY AND  
PHARMACEUTICAL SCIENCES

29 SEPT 2015 DÜSSELDORF

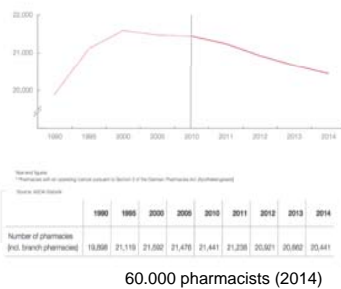
Dr. Katja Renner

### In Germany

- » The role of pharmacists today and in the future
- » Pharmacy 2030 - perspectives
- » Projects on medication management:
  - » ARMIN/PRIMA, Apo-AMTS, ATHINA, Geriatric MR, WestGem, DIADEMA
- » The challenge of implementation

### Community pharmacy in Germany - facts

- » Ownership is restricted to pharmacists.
- » No restriction on the total number of pharmacies.
- » License is required to own and to run a pharmacy.
- » Pharmacist's fixed-fee per prescription item is regulated.



### Pharmacists in Germany



ABDA

- » Health care profession
- » Freelance profession



- » Merchant

### The role of community pharmacists today

- » Dispensing drugs (by prescription or self medication)
- » Pharmaceutical compounding
- » Providing information about drugs, their effects, dosing, application, possible side effects and drug interactions.
- » AND: Managing a business

### New perspective for German pharmacists

- » In the annual meeting of German Pharmacist Day 2014 (*House of Delegates*) a large majority adopted the paper:

**“Pharmacy 2030 – Perspectives on provision of pharmacy services in Germany“**

The implementation process has been started!



ABDA - Federal Union of German Associations of Pharmacists





← online survey



← conferences/  
workshops



### Medicine Analysis and Medicine Management

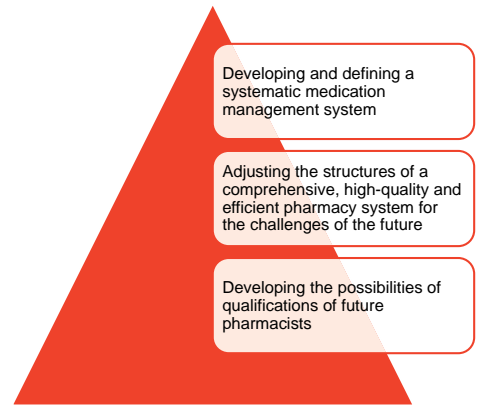
18. As an essential instrument for safe, effective and economical drug treatment, community pharmacies offer medicine management.



ABDA



- » Pharmacists as experts in medicines
  - » Providing patients with evidence-based consultation on medicines
  - » Introduction of a systematic, individual medication management system
- » To achieve safe and efficient drug treatment
- » Pharmacists in a healthcare professional network with clearly defined responsibilities!










- » Education/ Curricula
- » Medication safety education programs offered by each chamber
- » Literature on medication management
- » Software on medication management



Titelbeitrag PZ 18/2013:  
**AMTS – Herausforderung und Zukunftssicherung**

	medication data	patient information	clinical information
1- Simple medication-analysis	✓	⊘	⊘
2a - Intermediate medication-analysis	✓	✓	⊘
2b - Intermediate medication-analysis	✓	⊘	✓
3 - Advanced medication-analysis	✓	✓	✓

	medication data	patient information	clinical information
1- Simple medication-analysis	 Geriatric MR for Nursing Home Residents	 APOTHEKERVERBAND NORDRHEIN e.V.	
2a - Intermediate medication-analysis			
2b - Intermediate medication-analysis			
3 - Advanced medication-analysis	 Arzneimittelinitiative Sachsen-Thüringer Medikationsmanagement für Menschen mit Diabetes ©MR Diabetis Study from 2011-20-218-228 (Diogen et al.) DIADEMA Diabetes in Adolescents: Einsatz und Monitoring in Apotheken		

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- » ARMIN is based on a comprehensive concept for an interdisciplinary approach developed by the ABDA and the KBV (Federal Association of Statutory Health Insurance Physicians).
- » First contract was signed 2014 by two state associations of pharmacists, physicians, and a large statutory health insurance fund (AOK PLUS). ARMIN is conducted in Saxony and Thuringia (initial period of 5 years).
- » ARMIN consists of **three components** all aiming to improve the effectiveness and safety of pharmacotherapy:

Preferred generic prescribing	Medication catalogue	Medication management
→ Instead of brand name products	→ Preferred Prescribing of first-line drugs (following evidence based guidelines)	→ Initial medication review followed by long-term monitoring

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- » To create and to update an electronical medication plan (MP) for the poly-pharmacy patient is the core element of the ARMIN medication management.
- » Clear responsibilities for pharmacists and physicians:

**Pharmacists:**

- Gathering of information on the whole medication (incl. Brown Bag Review)
- Identifying, evaluating and solving drug related problems
- Responsibility for OTC-drugs and correct brand names on the MP

**Physicians:**

- Prioritisation of the drug regimen (Check for Over- and Under-Prescribing)
- Assessing diagnoses, clinical data and outcomes
- Responsibility for Rx-drugs on the MP

- » Pharmacists and physicians receive the same remuneration for providing the medication management.

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Purpose: medication analysis 2a in community pharmacies  
Qualification  
Implementation  
Evaluation

**Initiator:**

Chamber north rhine  
Cooperation with the chambers:  
Lower saxony  
Württemberg Baden  
Hesse

**Continuous qualification trainings**

Webinars, Life seminars  
Support by special clinical educated tutorials

**Evaluation**

by the University of Heidelberg,  
Hanna Seidling

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- » Geriatric MR, ARMIN, ATHINA, Apo-AMTS, WestGem, DIADEMA:
  - » Pharmacists detected two drug-related problems per patient in average.<sup>1</sup>
  - » In more than 95% of the MR 2a pharmacists detected drug related problems or the patient needed more informations.<sup>3</sup>
  - » Although most patients (80 %) have a medication plan --- the conformity between the official plan and the medication which was actually taken was only 6.5 %.<sup>4,7</sup>
  - » Medication management reduces MAI-Score (Medication Appropriateness Index) and drug related problems depending on the intervention frequency.<sup>2</sup>
  - » Pharmaceutical care reduces the HbA1c values in adolescent Type 1 Diabetes patients compared to usual care.<sup>6</sup>

1. Geriatric MR (Bitter et al. in this conference); 2. WestGem (Rose et al.); 3. ATHINA (Seidling et al. unpublished); 4. Apo-AMTS (chamber WL); 5. ARMIN ([www.arzneimittelinitiative.de](http://www.arzneimittelinitiative.de)); 6. DIADEMA (Emina Obarcanin et al.: Pharmaceutical Care of Adolescents with Diabetes Mellitus Type 1: The DIADEMA Study, a Randomized Controlled Trial, International Journal of Clinical Pharmacy); 7. Wallering, I. et al.: Discrepancies on Medications Plans in German Community Pharmacies. Jour. Of Evaluation in Clin. Practice 2915

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- » Geriatric MR, ARMIN, ATHINA, Apo-AMTS, WestGem, DIADEMA<sup>1-7</sup>
  - » The collaboration between pharmacists and physicians has to be improved: Moderate acceptance rate of the pharmacists' recommendations.
  - » In a professional health care network more than 50 % of the pharmacist's recommendations were accepted by the doctors.
- Our experience:**
  - » The pharmaceutical knowledge varies between pharmacists. Educational and pharmaceutical support must be secured. Communication skills of pharmacists have to be improved.

1. Geriatric MR (Jaehde et al.); 2. WestGem (Rose et al.); 3. ATHINA (Seidling et al. unpublished); 4. Apo-AMTS (Chamber WL); 5. ARMIN ([www.arzneimittelinitiative.de](http://www.arzneimittelinitiative.de)); 6. DIADEMA (Emina Obarcanin et al.: Pharmaceutical Care of Adolescents with Diabetes Mellitus Type 1: The DIADEMA Study, a Randomized Controlled Trial, International Journal of Clinical Pharmacy); 7. Wallering I et al. J. Eval Clin Pract. 2015;21(5):886-92.

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## Medication plan

**Definition:** „a printable document for the patient. It specifies the complete medication (Rx, OTC) [...] The MP facilitates the correct administration of the medication after patient counselling in the pharmacy.“<sup>[1]</sup>

- » Complete and up-to-date MP:
  - » Overview of the entire medication
  - » Of central importance for medication safety



Patient: to avoid misunderstandings



Health care professionals: identify and avoid drug related problems

[1] Botermann L, Schulz M, Abschlussbericht „Grundlegende Voraussetzungen für die elektronische Abbildung von Medikationsdaten im Hinblick auf den Medikationsplan (Aktionsplan Arzneimitteltherapiesicherheit) des Bundesministeriums für Gesundheit“ .15. Januar 2015, S. 6



## „German national medication plan“

- » A MP is part of the „Action Plan for Medication Safety“ (required by the German Federal Ministry of Health)
- » A specification defines requirements regarding form and content → standardization
- » Adaption after testing readability/understandability
- » Nationwide implementation planned
- » Implementation in practice and pharmacy software
- » Feature: 2D Barcode to enable digital communication without a telematics infrastructure

active ingredients	brand name	strength	form	change	unit	frequency	indication			
Chlorzapyridin	Pharcel 75 mg/ML	75mg	Tafel	0	1	1	post	During the meal	All infections	
Simvastatin	Simvastatin 20mg/ML	20mg	Tafel	0	0	1	1	post	After the meal	High blood lipid
Chlorzapyridin	Pharcel 75 mg/ML	75mg	Tafel	0	0	1	1	post	During the meal	All infections
Simvastatin	Simvastatin 20mg/ML	20mg	Tafel	0	0	1	1	post	After the meal	High blood lipid



## Conclusions



The interdisciplinary communication and cooperation of physicians and pharmacists have to be improved.



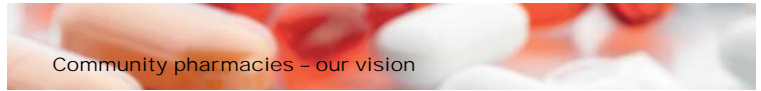
Software support is necessary for an efficient medication management and secure communication between health care professionals.



Pharmacists need to receive appropriate reimbursement for these additional pharmaceutical services.



Politics and health insurance funds have to be convinced of the benefits of an interdisciplinary medication management.



## Community pharmacies – our vision

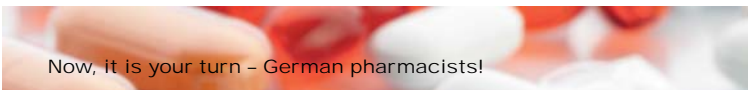


- The legal framework is valid for all community pharmacies and it guarantees a reliable and safe drug distribution to all citizens – all over the country at any time.

- Pharmacists are independent.



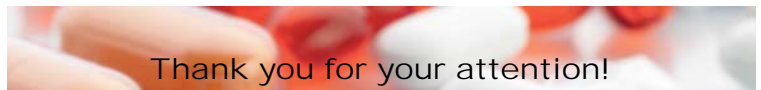
→ Pharmacists are turning into **medication managers** with a high competence in drug safety, effective and economical medication as part of a health care professional network.



## Now, it is your turn – German pharmacists!

- » The implementation and development of cognitive pharmacy services have to take place in a large number of community pharmacies!
- » Let the patients experience an individual medication management!
- » After the university degree – pharmaceutical education never ends (lifelong learning).
- » It is time to bear responsibility and to move towards the role of a medication manager!

» **LET'S START NOW!**



## Thank you for your attention!

