

Rational Formulary Strategies

The System of Objectified Judgment Analysis (SOJA) and Academic Detailing

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Educational Objectives:

After completing this continuing education, the pharmacy technician will be able to:

1. Describe the purpose of rational formulary strategies.
2. Identify the "SOJA" structure.
3. Recognize the key rational determination points.
4. Distinguish specific parts of the formulary process.
5. Describe the most common denominator in academic detailing.

Target Audience: Pharmacy Technicians and Pharmacists

Type of Activity: Knowledge

Biography Summary

Diana Rangaves, PharmD, Rph possesses a Doctorate of Pharmacy degree from the University of California, San Francisco. Her twenty-six year career has been varied and extensive: Director of Pharmacy Services-Retail, Pharmacy Technician Program Director for Santa Rosa Junior College, Adjunct Faculty, Pharmacy, Nursing, Counseling and Health Sciences Departments. Living in Santa Rosa has afforded her a working relationship with many providers, prescribers and facilities. She is skilled in medication reconciliation processes, chart reviews, screening for potential adverse drug reactions, formulary and therapeutic substitutions, employee management, both in recruitment of talent and the hiring procedures, productivity, technology, human resources, marketing, communication, compounding and related areas for the pharmaceutical and healthcare field. Educational training workshops include, but are not limited to: The Nursing Process—a Clinical Approach in Understanding Your Clients, The Art of Community-ology, Improving Interpersonal Skills, and The Power of YES. She is capable of creating Vision, Prioritize and Focus. Her experience with elders and dementia moved from theory to practical in the care of her late father. Diana has first-hand knowledge and experience with the patience, perspectives and perceptions necessary to provide the quality of life the patient is silently asking for. As the physical journey concludes, creating the environment for a good death is our final gift to them.

Glossary of Terms

ACADEMIC DETAILING: is an educational method for disseminating information to enhance physician medication selection and delivery

FORMULARY: list is developed and maintained through a formal evaluation process to assure efficacy and safety and is reviewed at least annually against emerging safety and efficacy information.

RATIONAL: balance, cogent, sensible reasonable, logical, realistic, sound, wise, judicious and based on reason.

SOJA: System of Objectified Judgment Analysis is a structured approach to the selection of drugs for formulary inclusion.

Introduction

The anatomy of the formulary selection process is treacherous, convoluted, and involved. Keeping the 'Rational' at the forefront takes exertion, intellect, and integrity. All too often other standards, such as emotional, personal financial, special interests, pharmaceutical marketing, and unconscious desires of power take the place of excellence. In the decision making process all must be rejected. The final shared paradigm must be one of quality.

A model for drug decision making for formulary purpose is described by the System of Objectified Judgment Analysis (SOJA).ⁱ In the SOJA method, medication selection principles are specified for each therapeutic drug classification. The principles applied are: clinical efficacy, incidence and severity of adverse effects, dosage frequency, drug interactions, acquisition cost, documentation, pharmacokinetics and pharmaceutical aspects. Additional significance is given to the development of resistance for antimicrobial agents.

The consequence of the SOJA method is that non-rational selection criteria are excluded and that drug selection decisions are solely based on rational criteria.ⁱⁱ The utilization of interactive software creates a transparent, realistic, and specific dashboard.

Impact

When healthcare resources are limited, decisions will have far-reaching consequences with individual magnitudes greater than first thought.ⁱⁱⁱ Decision-makers may be unaware of the power exerted by these multiple factors. Evidence-based medicine applies the use of balanced health outcomes information. The SOJA method, based on decision-making processes in economics, ensures that health outcomes information is given appropriate weight. Such approaches are valuable tools in discussions about product selection for formularies.^{iv}

In the United States, prescription drug spending increased at a rate of >10% per year and currently represents 11% of all healthcare expenditure. In the United Kingdom, the Health Care Financing Administration estimated that drug prescription costs will continue to increase at approximately 11% annually.^v This imbalance will continue to trend worldwide.

A SOJA approach will: (i) allow drug selection within a therapeutic classification across a range of indications, (ii) confer clinical effectiveness primacy over cost, and (iii) be suitable for the development of formularies that would stimulate cost-effective prescribing across both primary and secondary care.^{vi}

The SOJA Approach

The sequence of the decision matrix is efficacy, safety, tolerance, ease of use, applicability and cost. Each medication is compared to the imaginary ‘perfect’ agent within the therapeutic classification. The medication will be administered once per day, have optimal clinical effects with no side effects in 100% of all patients. This is the benchmark of excellence.

Efficacy is the actualization of positive outcomes and treatment goals.

Safety is the avoidance of negative outcomes, such as hazardous side effects that prolong length of stay and outpatient co-ordination of care.

Tolerance is the interruption of the care process due to less hazardous, generally transitory, but disturbing, side effects.

Ease of use is ease for the healthcare team and the patient; for example, dosing frequency with a user-friendly administration form.

Applicability is the scope of the treatment freedom from interactions and the ease for the caregiver.

Costs price per year.^{vii}

Collaborative Approach

There is an uneven approach in the study, examination, and comparison to formulary selection protocols. The strongest predictor of implementation success is adherence to medically appropriate and cost-effective therapies for our patients. Senior leadership, hospitalists, physicians, nurses, pharmacists, pharmacy technicians, and support personnel proactively review opportunities. Educational efforts focusing on the creation of a medication monograph summary based on current information. A representative of the Pharmacy Department presents the findings to the Pharmacy and Therapeutics Committee for determination of

formulary status. This service and SOJA strategies will simplify the selection of appropriate formulary medications for our patients.

An organization must be dedicated to the dissemination of evidence-based, non-commercial information to physicians and healthcare providers with the goal of achieving better prescribing and patient outcomes. A team of physicians, nurses, pharmacists, pharmacy technicians and health care professionals working together to offer a unique form of one-on-one education called Academic Detailing.

Academic Detailing

Academic detailing is “university or non-commercial-based educational outreach.”^{viii} The practice involves face-to-face education of prescribers by trained health care professionals, typically pharmacists, physicians, or nurses. The objective of academic detailing is to transform prescribing of medications to be consistent with evidence-based medicine, validate patient safety, and be cost-effective. A critical component of non-commercial or university-based academic detailing programs is that academic detailers, management, staff, program developers, etc., do not have any financial links to the pharmaceutical industry. Academic detailing has been studied for over 25 years^{ix} and is effective at improving prescribing of targeted medications about 5% from baseline.^x

Academic detailing (AD) is an educational method for disseminating information to enhance physician medication selection and delivery. Multifaceted AD interventions have a positive effect on the measured outcomes of changes in prescribing behavior, drug utilization, improvements in clinical outcomes and costs.^{xi} Interactive continuing education is the most effective in stimulating change in physician care patterns and patient outcomes.^{xii}

AD programs are currently delivered by CME providers in 5 Canadian provinces: British Columbia, Alberta, Saskatchewan, Manitoba, and Nova Scotia. These groups form the Canadian Academic Detailing Collaboration (CADC). The goal of the CADC is to prepare AD topics accurately, efficiently and to effectively disseminate evidence-based information.^{xiii}

This method has proved successful as educational 'props' by pharmaceutical companies and representatives—drug 'reps' to improve drug prescribing practices of their 'special interest' products. An equally effective manner of operation, with regard to achieving ownership by prescribers, senior leadership, pharmacy and nursing departments, may be made in the area of Pharmacy and Therapeutics Formulary.

In a groundbreaking discovery, academic detailing improves identification and reporting of adverse drug events.^{xiv} This lays the foundational support for safe practice recommendations.

Each facility is unique; therefore, critical evaluation and application must be managed in practice.

Role of Pharmacy Technician

Employment of pharmacy technicians and aides is expected to increase by 25 percent from 2008 to 2018, which is much faster than the average for all occupations. The increased number of middle-aged and elderly people—who use more prescription drugs than younger people—will spur demand for pharmacy workers throughout the projection period. In addition, as scientific advances lead to new drugs, and as more people obtain prescription drug coverage, pharmacy workers will be needed in growing numbers. As cost-conscious insurers begin to use pharmacies as patient-care centers and pharmacists become more involved in patient care, pharmacy technicians will continue to see an expansion of their role in the pharmacy. In addition, they will increasingly adopt administrative duties.^{xv}

Advancement opportunities in large pharmacies and health systems pharmacy technicians training or experience can be promoted to supervisory positions. Some may advance into specialty positions such as chemotherapy, medication reconciliation, nuclear or palliative care pharmacy technician. Others may move into Formulary Management.

The Pharmacy Technician may perform duties in one or more of the following areas: Formulary Management, Pharmacy Audit and Recovery, Pharmacy Service Center or Prior Authorization, Medicare Part D Operations and State Health Programs Pharmacy Operations.

Using established organizational guidelines and competencies, the Pharmacy Technician may reviews requests made by physicians, medical groups, pharmacies and members for the use of prescription drugs and pharmacy benefits. The pharmacy technician will research, and resolve question, problems or issues and present findings at committee meetings. They will consult with Clinical Pharmacists or Regional Medical Director on related issues.

ESSENTIAL DUTIES AND RESPONSIBILITIES include and are not limited to:

Formulary Management:

Reviews and processes formulary requests from P & T Committee.

Submits and maintains formulary requests.

Conducts quality assurance (QA) reviews to ensure accuracy of formulary set up.

Supports the development, maintenance and submission of the formulary.

Monitors the formulary for quality and to ensure accuracy.

Performs periodic audits to ensure accuracy and compliance with formulary administration requirements.

Assists with formulary database maintenance and accuracy.

Supports formulary revisions and document updates.

Maintains expert knowledge of the formulary.

Educes the healthcare providers on new medications and presents research to P & T Committee.

Reviews requests made by physicians for use of prescription drugs that are non-formulary,

Researches using the appropriate reference material and documents findings.

Responsible for knowing and interpreting pharmacy policy and procedure.

Performs audits and quality checks.

Assists with identifying and correcting formulary oversights.

Maintains expert knowledge of pharmaceutical therapeutic classifications.

Liaison to internal and external departments for pharmacy.

Preparation and review of various operational reports and audits.

Formulary management functions, including quarterly formulary updates to website, database and benefit maintenance as necessary.

Assist with formulary clinical projects.

Pharmacy Technician Formulary Management Competencies

Performance Evaluation Scale:

1. Exposed to the task
2. Accomplished task with help
3. Accomplished task to criteria
4. Able to teach task

Formulary and Business Operations

State and define the process and primary goals of a Pharmacy Formulary, Pharmacy and Therapeutics Committee, SOJA, Academic Detailing and Quality Assurance programs.

Pharmaceuticals

Identify and describe the following:

Define a drug.

Identify therapeutic drug classifications.

Differentiate between over-the-counter drugs and prescription drugs.

Distinguish between generic drugs and brand-name drugs.

List the various dosage routes for drugs.

Explain the importance of dosing time intervals.

Differentiate between dosage forms and their advantages and disadvantages.

Identify terms related to patient response to drugs.

List the main dangers of drug-drug interactions.

Describe therapeutic drug level monitoring.

Identify and use abbreviations correctly.

Calculate safe dosages for infants and children.

Calculate dosages for individual patients given the patient's weight and/or height and the recommended dosage.

Perform calculations necessary for the infusion of IV medications.

Utilize various medical research references via books, Internet, etc.

Conclusion

The results of present research clearly show that the SOJA and Academic Detailing tools can make a significant contribution to containing costs, improving the quality of drug selection, and patient outcomes. The system has been used for statins, proton pump inhibitors, selective serotonin reuptake inhibitors, wound dressings, and medical and surgical devices.^{xvi} The process provides better continuity of care across the primary-and secondary-care interface; decreased inventory within the hospital and actual reduction of drug costs after full implementation.^{xvii}

ⁱ Drugs. 1997 Apr;53(4):550-62. The System of Objectified Judgment Analysis (SOJA). A tool in rational drug selection for formulary inclusion. Janknegt R, Steenhoek A. Maasland Ziekenhuis, Department of Clinical Pharmacy and Toxicology, Sittard, The Netherlands.

ⁱⁱ Drugs. 1997 Apr;53(4):550-62. The System of Objectified Judgment Analysis (SOJA). A tool in rational drug selection for formulary inclusion. Janknegt R, Steenhoek A. Maasland Ziekenhuis, Department of Clinical Pharmacy and Toxicology, Sittard, The Netherlands.

ⁱⁱⁱ Pharmacoeconomics:2001 - Volume 19 - Issue - pp 49-52 Current Opinion Using Health Outcomes Data to Inform Decision-Making: Formulary Committee Perspective, Janknegt, Robert.

^{iv} Pharmacoeconomics:2001 - Volume 19 - Issue - pp 49-52 Current Opinion Using Health Outcomes Data to Inform Decision-Making: Formulary Committee Perspective, Janknegt, Robert.

^v Impact of Modified System of Objectified Judgement Analysis (SOJA) Methodology on Prescribing Costs of ACE Inhibitors. Ibrahim Alabbadi; Grainne Crealey; Michael Scott; Simon Baird; Tom Trouton; Jill Mairs; James McElnay Posted: 11/03/2006; Clin Drug Invest. 2006;26(9):485-494. © 2006 Adis Data Information BV

^{vi} Impact of Modified System of Objectified Judgement Analysis (SOJA) Methodology on Prescribing Costs of ACE Inhibitors. Ibrahim Alabbadi; Grainne Crealey; Michael Scott; Simon Baird; Tom Trouton; Jill Mairs; James McElnay Posted: 11/03/2006; Clin Drug Invest. 2006;26(9):485-494. © 2006 Adis Data Information BV

^{vii} InforMatrix®: treatment of rheumatoid arthritis using biological Bart JF van den Bemt, Frank HJ van den Hoogen, Ferdinand C Breedveld, Hille van der Tempel & Rob Janknegt† †Maasland ziekenhuis, Postbus 5500, 6130 MB Sittard, the Netherlands.

^{viii} Soumerai SB, Avorn J. Principles of educational outreach ('academic detailing') to improve clinical decision making. JAMA.1990;263(4):549-56.

^{ix} Avorn J, Soumerai SB. Improving drug-therapy decisions through educational outreach. A randomized controlled trial of academically based "detailing". N Engl J Med. 1983;308(24):1457-63.

^x O'Brien MA, Rogers S, Jamtvedt G, et al. Educational outreach visits: effects on professional practice and health care outcomes. Cochrane Database Syst Rev. 2007;4:CD000409

^{xi} Published Online, 22 April 2008, <http://www.theannals.com/>, DOI 10.1345/aph.1K537, The Annals of Pharmacotherapy: Vol. 42, No. 6, pp. 749-756. DOI 10.1345/aph.1K537, © 2008 Harvey Whitney Books Company. Effect of an Academic Detailing Intervention on the Utilization Rate of Cyclooxygenase-2 Inhibitors in the Elderly, Stephen D Graham, PhD, Lecturer, Department of Family Medicine, Dalhousie University, Halifax, Nova Scotia, Canada , Abraham G Hartzema, PharmD MSPH PhD FISPE, Professor and Eminent Scholar, Perry A Foote Chair in Health Outcomes Research, College of Pharmacy, University of Florida, Gainesville, FL, Ingrid S Sketris, PharmD MPA (HSA), Professor, College of Pharmacy, Dalhousie University, Canadian Health Services Research Foundation/Canadian Institutes of Health Research/Nova Scotia Health Research Foundation Chair in Drug Use Management and Policy Research , Almut G Winterstein, PhD , Assistant Professor, College of Pharmacy, University of Florida.

^{xii} Published Online, 22 April 2008, <http://www.theannals.com/>, DOI 10.1345/aph.1K537, The Annals of Pharmacotherapy: Vol. 42, No. 6, pp. 749-756. DOI 10.1345/aph.1K537, © 2008 Harvey Whitney Books Company. Effect of an Academic Detailing Intervention on the Utilization Rate of Cyclooxygenase-2 Inhibitors in the Elderly, Stephen D Graham, PhD, Lecturer, Department of Family Medicine, Dalhousie University, Halifax, Nova Scotia, Canada , Abraham G Hartzema, PharmD MSPH PhD FISPE, Professor and Eminent Scholar, Perry A Foote Chair in Health Outcomes Research, College of Pharmacy, University of Florida, Gainesville, FL, Ingrid S Sketris, PharmD MPA (HSA), Professor, College of Pharmacy, Dalhousie University, Canadian Health Services Research Foundation/Canadian Institutes of Health Research/Nova Scotia Health Research Foundation Chair in Drug Use Management and Policy Research , Almut G Winterstein, PhD , Assistant Professor, College of Pharmacy, University of Florida

^{xiii} Published Online, 22 April 2008, <http://www.theannals.com/>, DOI 10.1345/aph.1K537, The Annals of Pharmacotherapy: Vol. 42, No. 6, pp. 749-756. DOI 10.1345/aph.1K537, © 2008 Harvey Whitney Books Company. Effect of an Academic Detailing Intervention on the Utilization Rate of Cyclooxygenase-2 Inhibitors in the Elderly, Stephen D Graham, PhD, Lecturer, Department of Family Medicine, Dalhousie University, Halifax, Nova Scotia, Canada , Abraham G Hartzema, PharmD MSPH PhD FISPE, Professor and Eminent Scholar, Perry A Foote Chair in Health Outcomes Research, College of Pharmacy, University of Florida, Gainesville, FL, Ingrid S Sketris, PharmD

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^{xiv} Pharmacy World & Science, Volume 21, Number 3, 110-115, DOI: 10.1023/A:1008631926100 Academic detailing improves identification and reporting of adverse drug events ,Raymond G. Schlienger, Thomas F. Lüscher, Walter E. Haefeli and Ronald A. Schoenenberger

^{xv} Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2010-11 Edition, Pharmacy Technicians and Aides, on the Internet at <http://www.bls.gov/oco/ocos325.htm> (visited December 26, 2010).

^{xvi} Safe Therapeutic Economic Pharmaceutical Selection (STEPSelect): development, introduction and use in Northern Ireland. European Journal of Hospital Pharmacists (EJHP) Practice: Volume 16, 2010/3

^{xvii} Safe Therapeutic Economic Pharmaceutical Selection (STEPSelect): development, introduction and use in Northern Ireland. European Journal of Hospital Pharmacists (EJHP) Practice: Volume 16, 2010/3