3.3.1 Number of research papers per teachers in the journal notified on UGC website during the year 2019-2020

S.No	Title of paper	Name of the author/s	Department of the teacher	Name of journal	Year of publication	ISSN number	Link to recognition in UGC enlistment of the journal	Page No
1	The Analytical Method Development And Validation For The Simultaneous Estimation Of Ofloxacin And Satranidazole By Using Rp- HPLC	Dr.M.B.Venkatapathi Raju	Pharmaceutical chemistry	Indo American Journal Of Pharmaceutical Sciences	May-20	2349-7750	https://zenodo.org/record/3836311#.ZGSrE3ZBzIU	4
2	The Analytical Method Development And Validation For The Simultaneous Estimation Of Ofloxacin & Tinidazole By Using Rp- Hplc	Dr.M.B.Venkatapathi Raju	Pharmaceutical chemistry	Indo American Journal Of Pharmaceutical Sciences	May-20	2349-7750	https://zenodo.org/record/3836281#.ZGSp0nZBzIU	5
3	The Analytical Method Development And Validation For The Simultaneous Estimation Of Kanamycin & Cephalexin By Using Rp- Hplc	Dr.M.B.Venkatapathi Raju	Pharmaceutical chemistry	Indo American Journal Of Pharmaceutical Sciences	May-20	2349-7750	https://zenodo.org/record/3836259#.ZGSoW3ZBzIU	6
4	The Analytical Method Development And Validation For The Simultaneous Estimation Of Domperidone And Cinnarizineby Using Rp- Hplc	Chaitanya Bangari	Pharmaceutical Analysis	Indo American Journal Of Pharmaceutical Sciences	May-20	2349-7750	http://iajps.com/pdf/may2020/175.IAJPS175052020.pdf	7
5	The Analytical Method Development And Validation For The Simultaneous Estimation Of Setraline & Alprazolam By Using Rp- Hplc	Chaitanya Bangari	Pharmaceutical Analysis	Indo American Journal Of Pharmaceutical	May-20	2349-7750	https://zenodo.org/record/3834659#.ZGSkjn	8

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6	The Analytical Method Development And Validation For The Simultaneous Estimation Of Metformin Hydrocholride & Sitagliptin By Using Rp- Hplc	Chaitanya Bangari	Pharmaceutical Analysis	Indo American Journal Of Pharmaceutical Sciences	May-20	2349-7750	http://iajps.com/pdf/may2020/154.IAJPS154052020.pdf	9
7	The Analytical Method Development And Validation For The Simultaneous Estimation Of Imipenem & Cilastatin By Using Rp- Hplc	Chaitanya Bangari	Pharmaceutical Analysis	Indo American Journal Of Pharmaceutical Sciences	May-20	2349-7750	https://zenodo.org/record/3834637#.ZGScSnZBzIV	10
8	The Analytical Method Development And Validation For The Simultaneous Estimation Of Dutasteriod & Tamsulosin By Using Rp- Hplc	Chandaka Madhu	Pharmacology	Indo American Journal Of Pharmaceutical Sciences	May-20	2349-7750	http://iajps.com/pdf/may2020/155.IAJPS155052020.pdf	11
9	The Analytical Method Development And Validation For The Simultaneous Estimation Of Povidone & Ornidazole By Using Rp- Hplc	Dr.M.B.Venkatapati Raju	Pharmaceutical chemistry	Indo American Journal Of Pharmaceutical Sciences	May-20	2349-7750	https://zenodo.org/records/6408455	12
10	Pharmacy Decision Support Systems: Enhancing Clinical Decision-Making And Medication Safety	G.Prashanti	Pharmaceutics	International Journal Of Psychosocial Rehabilitation	Jan-20	1475-7192	https://www.psychosocial.com/archives/volume%2024/Issue%201/400281	13
11	Telemedicine And Pharmacy: Expanding Access To Medication Therapy Management Services	G.Prashanti	Pharmaceutics	International Journal Of Psychosocial Rehabilitation	Feb-20	1475-7192	https://www.psychosocial.com/archives/volume%2024/Issue%202/400289	14

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12	The Analytical Method Development And Validation For The Simultaneous Estimation Of Flouxetine & Olanzapine By Using RP-HPLC	Chaitanya Bangari	Pharmaceutical Analysis	Indo American Journal Of Pharmaceutical Sciences	May-20	2349-7750	https://zenodo.org/records/3831289	15
13	A Case Report On Maple Syrup Urine Disease (MSUD)	Randeep Raj Christian	Pharmacy Practice	Journal Of Integral Sciences	Dec-19	2581-5679	https://www.jisciences.com/index.php/journal/article/view/76	16
14	A Comprehensive Case Study On Systimatic Lupus Erythematous	B. Bhagya Sri	Pharmaceutics	Journal Of Integral Sciences	Jul-05	2581-5679	https://www.jisciences.com/index.php/journal/article/view/72	17
15	Prednisolone's Therapeutic Role And Challenges In Managing Steroid Dependent Nephrotic Syndrome	Y.V.Vandana	Pharmaceutics	Journal Of Integral Sciences	Dec-19	2581-5679	https://www.jisciences.com/index.php/journal/article/view/75	18
16	Case Study On "Understanding Gram-Negative Folliculitis : Causes, Symptoms, And Treatment Approaches	A.H.V Santhoshi	Pharmaceutical chemistry	Journal Of Integral Sciences	Sep-19	2581-5679	https://www.jisciences.com/index.php/journal/article/view/74	19
17	Understanding Cystic Fibrosis: A Comprehensive Case Study	A.H.V Santhoshi	Pharmaceutical chemistry	Journal Of Integral Sciences	Sep-19	2581-5679	https://www.jisciences.com/index.php/journal/article/view/73	20

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THE ANALYTICAL METHOD DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS ESTIMATION OF OFLOXACIN AND SATRANIDAZOLE BY USING RP- HPLC

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Article Received: March 2020 **Accepted:** April 2020 **Published:** May 2020

Abstract:

A method was developed on trial & error basis by changing the variables wherever required. Finally a method was optimized and the conditions were determined. Method was developed by using RP HPLC Method During this optimization at every trial a new combination of mobile phase was tried to overcome the drawbacks of the previous run. Finally the method was optimized at trial 5, the optimized method was using 40 volumes of 20mM Phosphate buffer pH 3.0: 60 volumes of Acetonitrile at 305 nm and validated as per ICH guidelines.

The method was validated for system suitability, linearity, precision, accuracy, specificity, robustness, LOD and LOQ. The system suitability parameters were within limit, hence it was concluded that the system was suitable to perform the assay. The method shows linearity between the concentration range of 60-140µg / ml for Ofloxacinand 72-168 for Satranidazole. The % recovery of Ofloxacin and Satranidazole were found to be in the range of 98.0 % - 102.0 %. As there was no interference due to mobile phase, the method was found to be specific. The method was robust as observed from insignificant variation in the results of analysis by changes in Flow rate and wavelength variation separately and analysis being performed by different analysts.

Keywords: *Acetonitrile, Ofloxacin ,Satranidazole, Flow rate and wavelength*

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THE ANALYTICAL METHOD DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS ESTIMATION OF OFLOXACIN & TINIDAZOLE BY USING RP- HPLC

P. Valli Sowjanya[1]*, Santanu Kumar Hotta[2], Chaitanya Bangari[3], Dr.M.B.Venkatapathi Raju[4]

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Abstract:

The present work deals with ANALYTICAL METHOD DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS ESTIMATION OF OFLOXACIN AND TINIDAZOLE IN TABLETS BY RP-HPLC using INERTSIL ODS 3V column,C18(250x4.6 ID). A mobile phase consisting of phosphate buffer: Acetonitrile buffer , pH 3.5 adjusted using Orthophosphoricacid in 50:50v/v ratio was employed in this study. The flow rate was set at 1.2 ml/min. Separation was performed at ambient temperature. Eluents were monitored by UV detector set at 308nm. The developed method was statistically validated for linearity and range, precision, limit of detection, limit of quantification, accuracy, robustness, Ruggedness and specificity.

Keywords: *phosphate buffer ,Acetonitrile, linearity , range, precision, limit of detection, limit of quantification, accuracy, robustness, Ruggedness and specificity.*

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THE ANALYTICAL METHOD DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS ESTIMATION OF KANAMYCIN & CEPHALEXIN BY USING RP- HPLC

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Article Received: March 2020 **Accepted:** April 2020 **Published:** May 2020

Abstract:

A novel method were recognized for simultaneous estimation of Kanamycin and Cephalexin by RP-HPLC method. The chromatographic conditions were effectively developed for the separation of Kanamycin and Cephalexin by by means of SYMMETRYC18 column (4.6×150mm)5µ, flow rate were1ml/min, mobile phase ratio were (70:30 v/v)methanol: phosphate buffer($KH_2PO_4$and K_2HPO_4) pH 3 (pH were accustomed with orthophosphoric acid),detection wavelength were258nm. The instrument utilizing was WATERS HPLC Auto Sampler, Separation module 2695, photo diode array detector 996, Empower-software version-2. The retention times were found to be 2.403 mins and 3.907mins. The % purity of Kanamycin and Cephalexin were establish to be 100.27% and 99.87% respectively. The system suitability parameters for Kanamycin and Cephalexin such as theoretical plates and tailing factor were found to be 2294, 1.27 and 4891 and 1.03, the resolution were found to be 8.67. The analytical method were validated according to ICH guidelines (ICH, Q2 (R1)). The linearity study n Kanamycin and Cephalexin were found in concentration range of 50µg-250µg and 5µg-50µg and correlation coefficient (r^2) were found to be 0.999 and 0.999, % recovery were found to be 99.56% and 99.48%, %RSD for repeatability were 0.27 and 0.40, % RSD for intermediate precision were 0.27 and 0.94 respectively. The precision study were precise, robust, and repeatable.LOD value were 2.17 and 6.60, and LOQ value were 0.032 and 0.1125 respectively.

Keywords: *Kanamycin , Cephalexin , precise, robust, and repeatable.*

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THE ANALYTICAL METHOD DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS ESTIMATION OF DOMPERIDONE AND CINNARIZINEBY USING RP- HPLC

B.Vemalakshmi[1]* ,Dr.N. Neelima[2], Chaitanya Bangari[3] , Dr.M.B.Venkatapathi Raju[4]

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Article Received: March 2020 **Accepted:** April 2020 **Published:** May 2020

Abstract:

The system suitability the % RSD for the peak area of domperidone and cinnarizine were found to be 0.100016 and 0.040736 respectively. For regression coefficient for both the drugs in linearity was found to be 1.Y- intercept for domperidone and cinnarizine were found to be -73286 and -92028 respectively. The individual % assays of domperidone and cinnarizine for system precession were found to be between 98-102.The % RSD of domperidone and cinnarizine were found to be 0.094872 and 0.014023 respectively. In intermediate precision the individual % assays of domperidone and cinnarizine were found to be between 98 to102. The % RSD of domperidone and cinnarizine of analyst 1 were found to be 0.065945 and 0.024433 respectively. The % RSD of domperidone and cinnarizine of analyst 2 were found to be 0.082395 and 0.030517 respectively. For accuracy the percentage mean recovery of 80 % domperidone and cinnarizine were found to be 99.98577 and 100.062 respectively, 100% domperidone and cinnarizine were found to be 100.0181 and 99.9292 respectively,120 % domperidone and cinnarizine were found to be 99.84517 and 99.9976 respectively. For Ruggedness for system-1 the %RSD of domperidone and cinnarizine were found to be 0.079988 and 0.032579 respectively and % assay of domperidone and cinnarizine were found to be 99.99 and 100.07 respectively. For system-2 the %RSD of domperidone and cinnarizine were found to be 0.061879 and 0.026339 respectively and % assay of domperidone and cinnarizine were found to be 99.94 and 99.93 respectively. The LOD of domperidone and cinnarizine were found to be 1.055929 and 0.656951968 respectively. The LOQ of domperidone and cinnarizine were found to be 3.199785 and 1.990763538 respectively.

Keywords: *domperidone ,cinnarizine , regression coefficient , accuracy and Ruggedness*

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THE ANALYTICAL METHOD DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS ESTIMATION OF SETRALINE & ALPRAZOLAM BY USING RP- HPLC

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Abstract:

High performance liquid chromatography is at present one of the most sophisticated tool of the analysis. The estimation of Sertaline Hcl and Alprazolam was done by RP-HPLC. The Phosphate buffer was pH 2.8 and the mobile phase was optimized with consists of Methanol: Phosphate buffer mixed in the ratio of 55:45 % v/ v. A C_{18} column C18 (4.6 x 150mm, 5µm, Make: XTerra) or equivalent chemically bonded to porous silica particles was used as stationary phase. The detection was carried out using UV detector at 225 nm. The solutions were chromatographed at a constant flow rate of 1.0 ml/min. the linearity range of Sertaline Hcl and Alprazolam were found to be from 100-500 µg/ml.of Sertaline Hcl and 1-5µg/ml of Alprazolam. Linear regression coefficient was not more than 0.999.

The values of % RSD are less than 2% indicating accuracy and precision of the method. The percentage recovery varies from 98-102% of Sertaline Hcl and Alprazolam. LOD and LOQ were found to be within limit.

The results obtained on the validation parameters met ICH and USP requirements .it inferred the method found to be simple, accurate, precise and linear. The method was found to be having suitable application in routine laboratory analysis with high degree of accuracy and precision.

Key words: *Sertaline ,Alprazolam, accuracy ,precision and linearity.*

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THE ANALYTICAL METHOD DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS ESTIMATION OF METFORMIN HYDROCHOLRIDE & SITAGLIPTIN BY USING RP- HPLC

Kalepu Sravan Kumar[1]*, Dr. N. Neelima[2], Chaitanya Bangari[3], Dr. M. B. Venkatapati Raju[4]

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Abstract:

A new method was established for simultaneous estimation of metformin and sitagliptin by RP-HPLC method. The chromatographic conditions were successfully developed for the proportion of metformin and sitagliptin by utilizing SYMMETRYC18 column (4.6×150mm)5µ, flow rate were1ml/min, mobile phase proportion were (70:30 v/v)methanol : phosphate buffer($KH_2PO_4$and K_2HPO_4) pH 3 (pH were adjusted with orthophosphoric acid),detection wave length were 258nm. The instrument used were WATERS HPLC Auto Sampler, Sepaproportionn module 2695, photo diode array detector 996, Empower-software version-2. The retention times were found to be 1.694mins and 3.334 mins. The % purity of Metformin and sitagliptin were found to be 100.27% and 99.87% individually. The system suitability parameters for metformin and sitagliptin such as theoretical plates and tailing factor were found to be 2294, 1.27 and 4891 and 1.03, the resolution were found to be 8.67. The analytical method were validated according to ICH guidelines (ICH, Q2 (R1)). The linearity study metformin and sitagliptin were found in consent proportion range of 50µg-250µg and 5µg-50µg and correlation coefficient (r^2) were found to be 0.999 and 0.999, % recovery were found to be 99.56% and 99.48%, %RSD for repeatability were 0.27 and 0.40, % RSD for intermediate precision were 0.27 and 0.94individually. The precision study were precise, robust, and repeatable.LOD value were 2.17 and 6.60, and LOQ value were 0.032 and 0.1125individually.

Keywords: *Metformin , sitagliptin, precise, robust, and repeatable.*

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THE ANALYTICAL METHOD DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS ESTIMATION OF IMIPENEM & CILASTATIN BY USING RP- HPLC

G. Regena Angel[1]*, S. Bhagyalata[2], Chaitanya Bangari[3], Dr. M. B. Venkatapati Raju[4]
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Article Received: March 2020 **Accepted:** April 2020 **Published:** May 2020

Abstract:

A new method was recognized for simultaneous estimation of Imipenem and cilastatin by RP-HPLC method. The chromatographic circumstances were effectively developed for the separation of Imipenem and cilastatin by using SYMMETRYC18 column (4.6×150mm)5µ, flow rate was 1ml/min, mobile phase ratio was (70:30 v/v) methanol: phosphate buffer($KH_2PO_4$and K_2HPO_4) pH 3 (pH was adjusted with orthophosphoric acid),detection wavelength was 258nm. The instrument used was WATERS HPLC Auto Sampler, Separation module 2695, photo diode array detector 996, Empower-software version-2. The retention times was found to be 3.345 mins and 2.523 mins. The percentage purity of Imipenem and cilastatin was initiate to be 100.27% and 99.87% correspondingly. The system suitability parameters for Imipenem and cilastatin such as theoretical plates and tailing factor was found to be 2885, 1.25 and 2235 and 1.33, the resolution were found to be3.48. The analytical technique was validated according to ICH guidelines (ICH, Q2 (R1)). The linearity study n Imipenem and cilastatin were found in concentration range of 50µg-250µg and 5µg-50µg and correlation coefficient (r^2) was found to be 0.999 and 0.999, % recovery were found to be 99.56% and 99.48%, %RSD for repeatability was 1.2 and 2, % RSD for intermediate precision was 1.1 and 1.1 respectively. The precision study was precise, robust, and repeatable.LOD value was 0.03 and 2.17,and LOQ value was 0.11 and 6.6 respectively.

Keywords: *Imipenem , cilastatin , precise, robust, and repeatable.*

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THE ANALYTICAL METHOD DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS ESTIMATION OF DUTASTERIOD & TAMSULOSIN BY USING RP- HPLC

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Article Received: March 2020 **Accepted:** April 2020 **Published:** May 2020

Abstract:

The method development and validation of Dutasteride and tamsulosin hydrochloride was done by RP-HPLC with the mobile phase was Acetonitrile: Phosphate buffer mixed in the ratio of 80:20 %v/v. A Symmetry C18 (4.6x 150mm 5 m, Make XTerra) column used as stationary phase. The detection was carried out using UV detector at 274 nm. The solutions were chromatographed at a constant flow rate of 0.8 ml/min. the linearity range of Dutasteride and tamsulosin hydrochloride were found to be from 25-125 mg/ml. Linear regression coefficient was not more than 0.999. The values of % RSD are less than 2% indicating accuracy and precision of the method. The percentage recovery varies from 97-102% of dutasteride and tamsulosin hydrochloride LOD and LOQ was found to be within limit. There was a significant degradation in the presence of 0.1N HCl, 0.1N NaOH, 3% H2O2 and also on heat. C18 column guarantees better peak shape, better resolution and lower pressure during operation. So the method is stability indicating.

Keywords: *Dutasteride , Tamsulosin Hydrochloride, Acetonitrile ,Phosphate buffer, Degradation, Stability.*

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THE ANALYTICAL METHOD DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS ESTIMATION OF POVIDONE & ORNIDAZOLE BY USING RP- HPLC

K.Aruna Kumar*, Santanu Kumar Hotta, Chaitanya Bangari , Dr.M.B.Venkatapati Raju
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Article Received: March 2020 **Accepted:** April 2020 **Published:** May 2020

Abstract:

*A new method was established for simultaneous estimation of Povidone and Ornidazole by RP-HPLC method. The chromatographic conditions were successfully developed for the separation of Povidone and Ornidazole by using Inertsil C18 column (4.6*150mm)5µ, flow rate was 1ml/min. mobile phase ratio was (70:30 v/v) methanol: Phosphate buffer. detection wavelength was 240 nm. The instrument used was WATERS HPLC Auto Sampler. Separation module 2695. photo diode array detector 996, Empower-software version-2. The retention times were found to be 2.462 mins and 3.737 mins. The % purity of Povidone and Ornidazole was found to be 99.84% and 100.27% respectively. The system suitability parameters for Povidone and Ornidazole such as theoretical plates and tailing factor were found to be 5358.3, 1.2 and 7597 and 1.1. the resolution was found to be 8.4. The analytical method was validated according to ICH guidelines (ICH, Q2 (R1)). The linearity study of Povidone and Ornidazole was found in concentration range of 10µg-50µg and 25µg-125µg and correlation coefficient (r^2) was found to be 0.999 and 0.999, % recovery was found to be 99.96% and 99.98%, %RSD for repeatability was 0.3 and 0.7, % RSD for intermediate precision was 0.3 and 0.9 respectively. The precision study was precision, robustness and repeatabilty.LOD value was 3.17 and 0.2372 and LOQ value was 7.80 and 5.30 respectively.*

Keywords: *Povidone . Ornidazole ,precision, robustness and repeatability.*

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Pharmacy Decision Support Systems: Enhancing Clinical Decision-Making and Medication Safety

Dr. G. Prasanthi*

Abstract:

Pharmacy Decision Support Systems (PDSS) have become integral tools in the field of healthcare, aimed at enhancing clinical decision-making and medication safety. This research paper explores the multifaceted role of PDSS in contemporary pharmacy practice and its impact on patient care. Through a comprehensive literature review and analysis, we delve into the benefits, challenges, and future prospects of these systems. As the complexity of healthcare continues to grow, the need for effective clinical decision-making tools becomes increasingly evident. PDSS offers healthcare practitioners a wealth of information, from drug-drug interactions to dosage recommendations, helping them make informed decisions at the point of care. Such systems not only aid in reducing medication errors but also contribute to better patient outcomes and overall quality of care. However, this paper does not overlook the challenges and limitations associated with the implementation and use of PDSS. Issues such as system integration, user acceptance, and data security are addressed to provide a comprehensive view of the landscape. To illustrate the practical applications of PDSS, we present case studies and examples that highlight successful implementations and showcase how these systems have positively impacted clinical practice. Looking forward, this paper discusses the future directions and trends in the field of pharmacy decision support systems, considering the ever-evolving healthcare environment and the potential influence of technological advancements. In conclusion, PDSS offers significant promise for enhancing clinical decision-making and medication safety in pharmacy practice. This paper underscores the importance of these systems in modern healthcare, emphasizing the need for continued research and innovation to maximize their potential.

Keywords: Pharmacy Decision Support Systems, Clinical Decision-Making, Medication Safety, Healthcare Technology

1. Introduction

The field of pharmacy and healthcare is in a constant state of evolution, driven by advancements in medical knowledge, technological innovations, and the ever-increasing complexity of patient care. Within this dynamic landscape, Pharmacy Decision Support Systems (PDSS) have emerged as crucial tools that play a pivotal role in enhancing clinical decision-making and medication safety. In an era where the stakes of healthcare are higher than ever, the integration of technology, data, and clinical expertise is paramount for delivering high-quality care and ensuring patient well-being [1].

Clinical decision-making in the pharmacy setting is a multifaceted process that requires healthcare practitioners to navigate a vast sea of information, including drug interactions, patient histories, dosing guidelines, and constantly evolving clinical evidence. Errors or omissions in this process can have significant consequences, ranging from compromised patient safety to increased healthcare costs. PDSS offers a comprehensive solution by providing clinicians with real-time, evidence-based information and decision support tools at the point of care [2].

The objective of this research paper is to delve into the world of Pharmacy Decision Support Systems, exploring their components, functionalities, and the profound impact they have on pharmacy practice and healthcare as a whole [3]. By examining the benefits, challenges, and practical applications of PDSS, we aim to provide insights into how these systems can be effectively utilized to improve medication safety and clinical decision-making.

In the pages that follow, we will navigate through the landscape of PDSS, presenting real-world case studies and examples to illustrate the successful integration of these systems in healthcare settings. Moreover, we will look ahead to the future of pharmacy decision support systems, discussing potential trends and advancements that have the potential to reshape the healthcare industry.

In essence, this research paper underscores the significance of PDSS in the modern healthcare ecosystem and emphasizes the need for further research and innovation in the pursuit of optimal patient care and medication safety [4]. As we embark on this journey through the world of Pharmacy Decision Support Systems, it becomes evident that these tools are not just complementary to the healthcare process but essential for safeguarding the health and well-being of patients.

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Telemedicine and Pharmacy: Expanding Access to Medication Therapy Management Services

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Abstract:

The integration of telemedicine into pharmacy practice has ushered in a transformative era for healthcare, particularly in the realm of Medication Therapy Management (MTM) services. This research paper explores the profound impact of telemedicine on expanding access to MTM services, providing an essential platform for the optimal management of medication regimens. Drawing from a comprehensive literature review, this paper illuminates the significance of MTM in healthcare, highlighting the crucial role it plays in patient outcomes and medication adherence. We investigate the evolving landscape of telemedicine and its application in pharmacy, shedding light on the numerous benefits and challenges inherent in this integration. The paper delves into the perspectives of both patients and pharmacists, revealing the tangible advantages telemedicine based MTM services offer in terms of convenience, accessibility, and improved patient outcomes. It also addresses the economic and regulatory factors influencing the adoption of telemedicine in pharmacy practice. However, this research does not shy away from the ethical, legal, and technological challenges that telemedicine and pharmacy must overcome, along with potential limitations of these services. In conclusion, this research paper underscores the potential of telemedicine to enhance access to MTM services, providing valuable insights into the evolving healthcare landscape and offering guidance for future research, policy, and practice considerations in the telemedicine-pharmacy nexus. As healthcare continues to evolve, telemedicine and pharmacy stand as essential partners in the pursuit of better medication management and improved patient care.

Keywords: Telemedicine, Pharmacy, Medication Therapy Management, Access Expansion

1. Introduction

In an era marked by rapid technological advancement and a growing emphasis on patient-centered care, the healthcare landscape is undergoing a profound transformation. One pivotal development within this transformation is the integration of telemedicine into pharmacy practice, offering innovative ways to provide Medication Therapy Management (MTM) services. MTM is a crucial component of contemporary healthcare, focusing on optimizing medication regimens to enhance patient outcomes, medication adherence, and overall well-being [1]. Telemedicine, a broad term encompassing the use of digital communication and information technologies to provide healthcare services remotely, has emerged as a powerful tool in this endeavor, expanding access to MTM services in unprecedented ways.

This research paper delves into the dynamic intersection of telemedicine and pharmacy, shedding light on how this integration is revolutionizing the delivery of MTM services. MTM, as an essential aspect of pharmaceutical care, has been shown to play a significant role in improving patient health, reducing adverse drug events, and controlling healthcare costs. By optimizing medication regimens and addressing medication-related issues, MTM services contribute to better patient outcomes, especially for those with complex medical conditions and polypharmacy needs [2].

The integration of telemedicine into pharmacy practice has opened up new avenues for reaching patients and providing timely, convenient, and effective MTM services. Patients can now connect with pharmacists remotely, eliminating geographic barriers and making MTM services accessible to a broader population, including those in rural or underserved areas [3]. This paper aims to explore the multifaceted aspects of telemedicine in pharmacy, ranging from the benefits and challenges of this integration to the economic and regulatory factors that shape its implementation.

In this context, it is essential to consider the perspectives of both patients and pharmacists. Patients increasingly value the convenience and flexibility that telemedicine based MTM services offer, as they can receive care from the comfort of their homes. Pharmacists, on the other hand, are adapting to new practice models and embracing telehealth technologies to provide high-quality MTM services [4]. Training and regulatory considerations are key aspects in this evolution. Nonetheless, this integration is not without its complexities. Ethical and legal considerations, along with technological challenges, pose hurdles that must be addressed. Additionally, potential limitations in delivering certain aspects of MTM via telemedicine require thoughtful examination.

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THE ANALYTICAL METHOD DEVELOPMENT AND VALIDATION FOR THE SIMULTANEOUS ESTIMATION OF FLOUXETINE & OLANZAPINE BY USING RP- HPLC

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Abstract:

A new method was established for simultaneous estimation of Fluoxetine and Olanzapine by RP-HPLC method. The chromatographic conditions were successfully developed for the separation of Fluoxetine and Olanzapine by using Agilent C18 column (4.6×150mm)5µ, flow rate was 1ml/min, mobile phase ratio was (60:40 v/v) methanol: Phosphate buffer pH 3.0, detection wavelength was 256 nm. The instrument used was WATERS HPLC Auto Sampler, Separation module 2695, photo diode array detector 996, Empower-software version-2. The retention times were found to be 2.327 mins and 4.342 mins. The % purity of Fluoxetine and Olanzapine was found to be 99.84% and 100.14% respectively. The system suitability parameters for Fluoxetine and Olanzapine such as theoretical plates and tailing factor were found to be 2937, 1.3 and 2300 and 1.3, the resolution was found to be 4.6. The analytical method was validated according to ICH guidelines (ICH, Q2 (R1)). The linearity study of Fluoxetine and Olanzapine was found in concentration range of 50µg-250µg and 10µg-50µg and correlation coefficient (r2) was found to be 0.999 and 0.999, % recovery was found to be 100.07% and 100.06%, %RSD for repeatability was 0.3 and 0.39, % RSD for intermediate precision was 0.1 and 0.16 respectively. The precision study was precision, robustness and repeatability. LOD value was 3.041 and 3.08 and LOQ value was 9.79 and 10.37 respectively.

Keywords: *Fluoxetine, Olanzapine, methanol and Phosphate buffer.*

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Case Study

Journal of Integral Sciences

Case Report on Maple Syrup Urine Disease (MSUD)

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Kalepu Swathi

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Abstract

This case report presents the clinical journey of a 3-month-old male infant diagnosed with Maple Syrup Urine Disease (MSUD). The infant exhibited classic symptoms of MSUD, including poor feeding, irritability, and episodes of altered consciousness. Laboratory tests revealed elevated levels of branched-chain amino acids and ketoacids, confirming the diagnosis. Genetic testing identified mutations in the BCKDHA gene, solidifying the diagnosis of MSUD. Immediate management involved dietary restrictions targeting branched-chain amino acids, leading to symptomatic improvement. Long term care emphasized the necessity of continuous dietary modifications and vigilant monitoring to prevent metabolic decompensation and neurological sequelae. This case underscores the significance of early detection through newborn screening and highlights the pivotal role of dietary management in mitigating MSUD-related complications. Emphasizing the importance of multidisciplinary care, this report contributes to the understanding of MSUD management and emphasizes the need for ongoing surveillance and compliance for optimal outcomes.

Keywords: Maple Syrup Urine Disease, MSUD, newborn screening, branched-chain amino acids, metabolic disorder, genetic testing, dietary management, neurological complications, case report, infant care.

Introduction

Maple Syrup Urine Disease (MSUD) is an autosomal recessive disorder characterized by impaired branched-chain amino acid metabolism, leading to the accumulation of toxic metabolites [1]. MSUD often presents with neurological symptoms, including feeding difficulties, poor weight gain, lethargy, and a distinctive maple syrup odor in the urine. Of course! The introduction in a case report serves as an opening section that provides essential background information about the condition being discussed. In this case, focusing on Maple Syrup Urine Disease (MSUD), the introduction typically covers:

MSUD as a rare inherited metabolic disorder caused by a deficiency in the enzyme complex responsible for breaking down certain amino acids—leucine, isoleucine, and valine. This leads to their accumulation in the body.Genetic Basis: Mention that MSUD is inherited in an autosomal recessive pattern, usually caused by mutations in the genes responsible for encoding the enzyme complex involved in amino acid metabolism [2, 3].

Clinical Manifestations

Briefly describe the typical clinical presentation of MSUD, which may include neurological symptoms like feeding difficulties, altered consciousness, lethargy, and the distinctive Odor of maple syrup

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Case Study

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A Comprehensive Case Study on Systematic Lupus Erythematous.

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Abstract

Systemic Lupus Erythematosus (SLE) is a complex autoimmune disease that can affect multiple organs and systems within the body. This case study explores the clinical presentation, diagnosis, and management of a patient diagnosed with SLE, highlighting the challenges and intricacies associated with this condition. By examining the patient's journey, healthcare professionals can gain insights into the complexities of SLE and enhance their ability to provide comprehensive care.This case study aims to enhance understanding of SLE and contribute to the evolving knowledge in the field.

Keywords: Auto immune disorder, auto antibodies,formidable enigma.

Introduction

Systemic Lupus Erythematosus is a chronic autoimmune disorder characterized by the presence of auto antibodies that can target various tissues and organs, leading to inflammation and damage. It affects millions worldwide, predominantly women of childbearing age. Systemic lupus erythematosus (SLE) stands as a formidable enigma in the realm of autoimmune diseases, presenting a complex and dynamic clinical landscape. This chronic, multisystem disorder challenges healthcare professionals with its diverse manifestations, affecting virtually any organ system. As an intricate interplay of genetic predisposition, environmental triggers, and dysregulated immune responses, SLE not only perplexes clinicians but also significantly impacts the quality of life for those it afflicts. The complex interplay of genetic, immunologic, environmental, and hormonal factors contributes to the pathophysiology of systemic lupus erythematosus. The heterogeneity of the disease and the involvement of multiple organ systems make SLE a challenging condition to manage. Treatment typically involves a multidisciplinary approach, including medications to suppress the immune system, manage symptoms, and prevent complications. Regular monitoring and follow-up are crucial for individuals with SLE to optimize their long-term outcomes.

Clinical Manifestations

Systemic lupus erythematosus (SLE) exhibits a wide array of clinical manifestations, often affecting multiple organ systems. Common symptoms include fatigue, joint pain, and skin rashes—most notably the characteristic butterfly rash on the face. Joint inflammation, known as arthritis, frequently occurs, leading to stiffness and discomfort. SLE can also involve the kidneys, causing lupus nephritis, a severe complication. Cardiovascular symptoms may manifest as pericarditis or inflammation of the heart lining. Additionally, individuals with SLE may experience photosensitivity, oral ulcers, hair loss, and hematologic abnormalities such as anemia or low platelet count. The heterogeneous nature of SLE underscores the importance of a comprehensive approach to diagnosis and management, tailored to

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Case Study

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"Prednisolone's Therapeutic Role and Challenges in Managing Steroid-Dependent Nephrotic Syndrome"

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Abstract

This case study investigates the therapeutic application of prednisolone in the management of steroid-dependent nephrotic syndrome (SDNS) and the complications that come with it. Steroid-dependent nephrotic syndrome is a clinical quandary in which individuals relapse after reducing or discontinuing corticosteroid medication. In these circumstances, prednisolone, a routinely administered corticosteroid, plays a critical role in establishing and maintaining remission. The study looks on the effects of prednisolone on proteinuria, inflammation, and edema in patients with SDNS.

Keywords: steroid-dependent nephrotic syndrome, corticosteroid, inflammation, edema.

Introduction

Nephrotic syndrome (NS) represents one of the most researched kidney illnesses in paediatric patients, with a favourable prognosis and a remarkable drop in mortality (3% or less) [1]. It is an idiopathic condition distinguished by nephrotic protein urine (urine protein to creatinine levels of 200 mg/mmol, or 3+ proteins on urine test), hypoalbuminemia (serum albumin 3 g/dL), edema, and hyperlipidemia [2,3,4]. Steroid medication is effective in treating childhood nephrotic syndrome; nevertheless, 40–50% of individuals experience relapses often or develop steroid dependence [5]. Steroid-sensitive nephrotic syndrome (SSNS), steroid-dependent nephrotic syndrome (SDNS), and steroid-resistant nephrotic syndrome (SRNS) have been identified based on the response to corticosteroid therapy. The diagnosis of corticosteroid-dependent nephrotic syndrome is characterized by two consecutive relapses that occur either during or within 14 days of stopping medication. When a patient does not experience a full remission following eight weeks of steroid medication, they are considered first non-responder or steroid-resistant [3, 6]. In order to minimize the side effects of steroids, glucocorticoids should be administered everyday (60 mg/m2/day) for the initial four weeks of treatment, then 40 mg/m2 on alternating days for eight to twenty weeks. This is in accordance with the KDIGO guidelines [7].

Case study

A 2-year-old male child was hospitalized to a department of nephrology with the major complaint of decreased urine output since,two days and the complaint of facial puffiness, abdominal distension, and pedal edema since ,15 days. A high-grade fever with chills and rigors was reported. For the past three days, I've had loose stools. 1-2 episodes per day for three days.There was no mention of a cough, abdominal pain, or burning micturition. The patient had a similar complaint in the prior two episodes of steroid-dependent nephrotic syndrome. There is no history

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Case Study

Journal of Integral Sciences

Case Study on "Understanding Gram-Negative Folliculitis: Causes, Symptoms, and Treatment Approaches

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Abstract

Gram-negative folliculitis is a dermatological condition characterized by the presence of gram-negative bacteria, notably Escherichia coli, Pseudomonas aeruginosa, Serratia marcescens, Klebsiella, and Proteus species. This abstract encapsulates key findings from a comprehensive case study conducted to unravel the intricacies of gram-negative folliculitis. Through detailed case profiles, we explore diverse manifestations, such as those arising from prolonged antibiotic use, spa pool exposure to Pseudomonas aeruginosa, and freshwater related Aeromonas hydrophilia infections. The study delves into the unique staining pattern of gram-negative bacteria, emphasizing the significance of the Gram stain in diagnosis. Implications for accurate diagnosis and tailored treatment strategies, including the use of antibiotics effective against gram-negative bacteria, are discussed. The case a 24-year-old female comes to the hospital seeking treatment for acne-related problems and has been using Self-medication. This case study contributes valuable insights to the evolving landscape of dermatological conditions associated with gram-negative bacteria, facilitating a more nuanced understanding for medical practitioners, and paving the way for enhanced patient care. Gram-negative folliculitis in acne and rosacea patients is best treated with isotretinoin (0.5-1 mg/kg daily for 4-5 months).

Keywords: Gram-negative folliculitis, Escherichia coli, Pseudomonas aeruginosa, Serratia marcescens, Klebsiella, Proteus species, Dermatological condition.

Introduction

Gram-negative bacteria folliculitis is a dermatological condition marked by the invasion of hair follicles by Gram-negative bacteria, a diverse group that includes Pseudomonas aeruginosa, Escherichia coli, and Klebsiella pneumoniae. Pseudomonas aeruginosa, known for its resilience in moist environments, can cause a distinctive form of folliculitis known as "hot tub folliculitis." This condition arises from exposure to inadequately treated water in hot tubs or swimming pools. Escherichia coli, commonly associated with gastrointestinal infections, and Klebsiella pneumoniae, a bacterium residing in the human gastrointestinal tract, are also implicated in Gram-negative bacteria folliculitis, particularly in individuals with weakened immune systems. Clinical presentations often feature red, pustular lesions surrounding hair follicles, accompanied by symptoms such as pruritus and tenderness. Individuals with compromised immunity, diabetes, or those using immunosuppressive medications are more susceptible. Treatment strategies involve the use of antibiotics effective against Gram-negative bacteria, either topically or orally, tailored to the severity of the infection. Prevention emphasizes maintaining personal hygiene and avoiding exposure to contaminated water sources. Given the

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Case Study

Journal of Integral Sciences

Understanding Cystic Fibrosis: A Comprehensive Case Study

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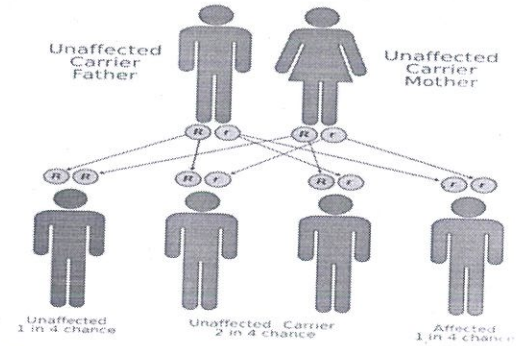
Abstract

Cystic fibrosis (CF) is a genetic disorder that significantly impacts the respiratory and digestive systems. This case study explores the analysis of a patient diagnosed with cystic fibrosis, along with clinical manifestation, the ultimate cause of CF and treatment strategies. Cystic fibrosis (CF) is a hereditary genetic disorder characterized by mutations in the cystic fibrosis transmembrane conductance regulator (CFTR) gene, leading to the production of thick and sticky mucus. This condition predominantly affects the respiratory, digestive, and reproductive systems, causing chronic respiratory infections, difficulty breathing, persistent cough, and pancreatic insufficiency. Conclusion: Cystic fibrosis is a complex genetic disorder that affects multiple systems, requiring a holistic and personalized approach to management. This case highlights the importance of early diagnosis, comprehensive care, and ongoing research in improving the lives of individuals with CF.

Keywords: Cystic Fibrosis,CFTRgene,Mutation.

Introduction

Cystic fibrosis is an autosomal recessive genetic disorder caused by mutations in the CFTR gene. The defective CFTR protein leads to the production of thick and sticky mucus, affecting various organs. Patient, diagnosed with CF at birth, exemplifies the daily struggles and triumphs associated with this chronic condition.



Genetic Basis: CF results from mutations in the CFTR gene, affecting chloride transport across cell membranes. Common mutations include ΔF508, G551D, and W1282X. Genetic testing is crucial for early diagnosis, enabling proactive management and personalized treatment plans.

Case Presentation

A 16-year-old girl diagnosed with CF, shedding light on the challenges she faces and the comprehensive care required to manage this complex condition. Through the patient's journey, we delve into the genetic basis, clinical manifestations, and evolving treatment strategies for cystic fibrosis.

Clinical Manifestations:

1. **Respiratory System:** Patient experiences chronic cough, recurrent lung infections, and difficulty breathing. Progressive lung damage is a hallmark of CF, leading to respiratory failure over time.
2. **Digestive System:** CF affects the pancreas,