

Disease processes and therapeutic interventions assignment



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The legal and professional responsibilities related to therapeutic Interventions will be critically explored and the underlying pathologically and pharmacology related to the case study discussed. Critical appraisal and reflection will be used to discuss the strategies for the decisions made about the patients' management. This will be related to the development of the role of the Advanced Nurse Practitioner.

The first person will be used with this assignment; this is argued as expectable when reflecting on personal learning in academic writing (Webb 1992). Confidentiality of the patient will be maintained throughout this assignment and all identifying details will be withheld as in line with the Nursing and Midwifery Council Code of Conduct (NMC 2004). I work as a Nurse Practitioner in a minor injuries / minor illness unit for a private healthcare company within a city environment. The patient that has been selected to discuss is a female of forty two year old who is allied Samaritan and she attended the unit following being bitten by a dog.

My assessment and management of this patient demonstrates my progression towards competencies of the Advanced Nurse Practitioner (The Department of Health 2010) such as drawing on experience and skill, delivering patient care, showing autonomous expert practice. The case study, presented in appendix A, provides details of Cantata's symptoms, findings from physical examination and a treatment plan including the prescription of Co-Maxillae, the recommended antibiotic treatment for animal bites (NICE 2012).

The administration of medicines is a common and important clinical procedure in nursing (Middleton 2007). The registered nurse has a duty to provide safe and effective medicines management, to ensure that the patient gets the maximum benefit from the medicines required and minimizing potential harm (MIRA 2004). It is essential for registered nurses to provide adequate information to make informed choices in the medicines that are prescribed for them (NC Bibb), and will ensure medical concordance.

In the Code (NC AAA) it states that the registered nurse must use professional judgment, exert knowledge and skills, practice safely and within the law in all aspects of clinical care and maintain the best interests of the patient at all time. NDIS and Newell (2008) says that the registered nurse has a duty to ensure that they have up to date knowledge and skill in pharmacology. Appendix A shows a case study and shows my current practice and my advancement to advanced practice; forming a working diagnoses, discussing a treatment plan with a patient, based on evidence-based practice (DOD 2010).

I am able to formulate a plan with the patients, present my clinical findings and provide retirement under local patient group directives within the company I work for. I currently have to prescribe under patient group directives as I have not yet undertaken the NC (2006) required educational accreditation that supports nurses to prescribe within legislation (Medicinal products: Prescription by Nurse etc Act 1992). The Statutory control of medicines in the United Kingdom has undergone many changes to ensure that non-medical prescribing can occur.

The first change was from the Cumbersome report in 1986 which suggested that district nurses and healthcare visitors involved in visiting patients in the community should be given the rights to prescribe certain items that would be used for patients that they cared for. A Crown report in 1989 highlighted that doctors often signed prescriptions on the advice of nurses and this concluded that nurses should be given some power over prescribing in line with their professional responsibility.

In 1992 came the primary legislation which gave District Nurses and Health Visitors nurse prescribing rights but still were not independent prescribers. This legislation was the Medicinal Products: Prescription by Nurses Act 1992 this led to the introduction of the Nurse Prescribers' Formula in 1994. In 1998 District Nurses and Health Visitors were granted the national independent nurse prescribing and qualified training took place. Also in 1998, a report on the Supply and Administration of Medicines under Group Protocols was published (Patient Group Directions is the legal term for what were known as group protocols).

Patient Group Directions (Pegs) are written instructions for the supply or administration of medicines to groups of patients who may not be individually identified before presentation for treatment. The report recommended that the legal position should be clarified, and in August 2000 the relevant medicines legislation was amended to encompass the national health private, voluntary or charitable sector. In 2001 there were further developments and all nurses that had undertaken special training and held a VIVO qualification could prescribe from the Nurse Prescribers Formula.

The Health and Social Care Act of 2001 introduced the practice of supplementary prescribes and this became legislation in 2003. “

Supplementary prescribes are responsible for the continuing care of patients who have first been clinically assessed by an independent prescribe.

Supplementary prescribing is a voluntary partnership between an independent prescribe and a supplementary prescribe to implement an agreed patient-specific clinical management plan with the patient’s agreement. A supplementary prescribe can prescribe any medicine, including controlled drugs, for any condition within their competence.

The scope of supplementary prescribing is an issue to be agreed in the patient’s clinical management plan, and will be for the medical judgment of the independent prescribe” – DOD 2010. In 2006 a major change took place and legislation was made to enable nurse independent prescribing. Nurse Independent Prescribes are specially trained nurses allowed to resource any licensed and unlicensed drugs within their clinical competence. In 2006, nurse prescribes were given full access to the British National Formula (BAN) and this has put nurses on a par with doctors in relation to prescribing capabilities.

Non- medical prescribing has been constantly evolving over the past 20 years and from August 2013; radiographers became the latest group of professionals to be able to become supplementary prescribes. Other professionals include chiropodist, podiatrist and physiotherapists who have been able to become supplementary and independent prescribes (Health and Care Professions Council 2014). Registered nurses that gain the prescribing qualification are able to prescribe from the full formula of <https://assignbuster.com/disease-processes-and-therapeutic-interventions-assignment/>

medicines including controlled drugs (ARC 2012). With nursing extended roles comes extended legal accountability.

Blowlamp's law is the legal framework that applies to the nurse prescribes' practice and states that the level of competence must be equal to a similarly experienced prescribe (Warner 2005). The Competency Framework for all Prescribes (National Prescribing Centre 2012) works with the NC (2006) making recommendations to ensure patient safety ND maintenance of competence where nurse prescribes must demonstrate knowledge and skill appropriate to their specialist (Diamond 2011). The following case study discussion provides evidence of this.

Animal and human mouths contain a mixture of aerobic and anaerobic organisms. The most commonly isolated bacteria are Pastured multimedia, followed by streptococci, staphylococci, morale, crematoriums and Engineers (Medicos and Cannot, 2004). Mellon et al (1997) note that local or systemic infections after a bite are more likely in patients who are miscomprehended by homological malignancy, supplements or cirrhosis. Bower (2003) notes that even minor bites can penetrate a tendon sheath, joint capsule, bone or nerve, resulting in more serious complications such as septic arthritis and storytelling.

Infected bites presenting less than 12 hours after injury are particularly likely to be infected with Pastured SSP, whereas those presenting staphylococci or anaerobes. Cantata's bite was superficial and had no bone or tendon involvement and she had full range of movement of fingers. Majority of dog bites are classed a superficial that are seen in the accident and emergency

departments (Morgan et al 2007). Dearer (2013) states that dog bites that are not healing within 48 hours after the bite, the injured area may be infected.

Cat bites, human bites, and bites on the hand or fingers become infected more easily than other bite wounds. Poor blood supply in the hand increases risk of infection. It is reported that up to 40% of hand bites become infected (Lealer et al 2009). Clinical signs for development of bite associated infection may be subtle, with increased pain and tenderness around the wound as the first indication. Injuries may initially have edema, rather, economics and even graciousness drainage, but generally egging to improve (Thomas and Brook 20011).

Cantata's symptoms were common with those described and were local to the site of the bite with inflammation and heat on palpation. She was showing no signs that the infection from the dog bite had become a systemic infection with enlarged glands, fever or increased lethargy. Samaritan responded well to treatment and did not require any further investigations such as wound swabbing or onward referral to the specialist hand trauma clinic that was held in the plastics department of the local hospital. Nice Guidelines are a point of reference for practice.

They provide rigorous and hectically derived statements of best evidence to improve patient care (Lovely and Bee 2008). There are many studies that have shown that implementation of NICE Guidelines have resulted in improved patient management (Airbase et al 2013). More to write here and to link to antibiotic choose and resistance . Co-maxillae is a penicillin. It is a

μ -lactate antibiotic. All μ -lactate antibiotics contain the μ -lactate ring, which is a chemical structure, the integrity of which is essential for their antimicrobial activity (Greetings 2004 IPPP, Neal 2006 pop).

Penicillin act by interfering with the synthesis of the bacterial cell wall (Banning 005), It inhibits the penicillin binding proteins, (PBS) involved in the cross-linking of the epidemiological layer of the cell wall, which protects the bacterium from its environment. This prevents it from resisting the osmotic gradient between its interior and its environment, causing the cell to swell and rupture. As the cells of human organisms do not possess this type of wall, drugs that act here may be especially selective.

Penicillin's are therefore bactericidal and are effective only against multiplying organisms, as resting organisms are not making a new cell wall (Bennett and Brown 2008 IPPP). The penicillin's are widely distributed in body fluids, passing into Joints; into pleural and pericardia cavities; into bile, saliva; and across the placenta. Being lipid-insoluble, they do not enter mammalian cells and do not cross the blood-brain barrier unless the engines are inflamed, (Rang et al 2007 IPPP). Penicillin's can pass through the engines when inflammation is present, but the barrier is restored when the inflammation recedes (Simenon et al 2005 IPPP).

Simenon et al (2005) reports that all penicillin's cross the placenta barrier and that mom are known to have iatrogenic effects. Lactates, which open the μ -lactate ring and terminate antimicrobial activity. Other possible mechanisms include modifications to PBS to render them unable to bind μ -lactates. This reduces permeability of the outer cell membrane of Gram-

negative bacteria, and possession of pumps in the outer membrane, which remove the μ - lactate molecules that manage to enter. Some particularly resistant bacteria may possess several mechanisms that act together (Bennett and Brown 2008 IPPP).

Co- maxillae contains galvanic acid. Galvanic acid, a naturally occurring μ -lactic Lucile, inhibits μ -lactates activity at low concentrations (Reeves et al 1978). Some bacteria produce μ -Lactates capable of breaking down both noncompliance and monoclinic. Galvanic acid combined with monoclinic (Co-maxillae) prevents this breakdown, by binding irreversibly to μ -Lactates and enables it to destroy μ lactates-producing bacteria (Greetings 2004 p 304 Bennett and Brown 2008 IPPP). Galvanic acid itself has no significant antibacterial activity (BAFFIN IPPP).

This assignment has enabled me to investigate the properties of Co-maxillae and to understand the reasoning behind the wide use in current emergency medicine specially. As well as being a broad spectrum antibiotic, which covers most of the infections likely to be seen in primary care, it is also used as it is only a small amount of medicine to be administered and only needs to be given twice a day. Evidence suggests that compliance with antibiotics is improved the fewer times a day it needs to be administered. The choice of antibiotic in this case study was determined by local procedures and patient group directives (appendix 1).

It is also the nationally recognized drug of choice for bites of many kinds and is recommended by the NASH Choices. Within my area of practice there is a

regional antibiotic policy which recommends the antibiotics that should be used for certain conditions or diagnoses and this has to be followed as well.