

Nursing, mods, and the effects of shock essay

[Health & Medicine](#), [Nursing](#)



MODS or Multiple Organ Dysfunction Syndrome occurs when multiple organs are compromised by a deteriorating medical state, which triggers a shock response. What is distinct about the condition is that no organ is immune; the resulting sepsis can compromise any major organ, resulting in a high mortality rate. As such, knowing the proper nursing diagnoses and surrounding protocols is essential to positive patient outcomes.

Multiple Organ Dysfunction Syndrome or multiple organ failure, is not a single condition, which a patient suddenly acquires, but rather a continuum that insinuates a deteriorating condition (Ferrerira & Sakr 2011). In its earliest phases, or with a low MODS score, there is only mildly altered function of the organs, and chances are extremely good that the patient can be treated without any long-term organ damage or impairment. However, as it proceeds, if allowed to go undetected and untreated, it becomes a critical condition that causes irreversible damage, and can in extreme cases result in death (Ferrerira & Sakr 2011). In fact, it is the leading cause of following shock.

The key to preventing death as a result of MODS is early diagnosis. Nurses are typically with the patient significantly more than primary care physicians or specialist, and so are responsible for noting changes in condition that demonstrate a development of Sepsis and onset of MODS (Micheletti, 2013). Pre-identification of those patients most at risk, and diligent monitoring for changes in condition can have avert negative outcomes in many cases (Micheletti, 2013).

Thus the primary nursing diagnosis, according to Sommers and Fannin (2014), is “ related to microorganism invasion, immunosuppression,

malnutrition, and presence of invasive monitoring devices.”

Nursing priorities based on the nursing diagnosis include, include preventing infection, facilitating oxygen delivery and limiting tissue damage, managing decreased cardiac output, facilitating nutritional support to prevent nutrition imbalance, and providing comfort and emotional support for both the patient and their loved ones.

Preventing infection is directly related to locating and eliminating potential sources of infection. This means cleaning wounds, changing bandages and monitoring incisions. Increasing oxygen delivery and managing cardiac output are inextricably tied. Decreased Cardiac output can be related to both alterations in preload and afterload, or the hearts impaired contractility.

However, if it is not both monitored and managed it can lead to tissue death and compromised GI perfusion. Impaired gas exchange is related mismatched ventilation, perfusion, or intrapulmonary shunting, and can also be a major issue that impairs recovery and increases tissue risk. Because metabolic demands are often altered by a septic state, or shock, there are increased nutritional needs. These needs need to be not only met, in terms of providing nutrition, but balanced in terms of providing the exogenous nutrients that may be affected. Family coping can be supported, through care, empathy and other factors, in order to resolve stress and stimulation in order to decrease its impact on patient care.

Treatment, then, is broken in four distinct set of responses: providing anti-infectives, maintaining the perforation and oxygenation of the tissues, ensuring nutritional support, and immunomodulation (Sommers & Fannin 2014). First, it is necessary to look for and eliminate any potential source for

the infection. Then, maintain and monitoring tissue perfusion and oxygenation will ensure that cardiac function is assured and oxygen delivery continues at the necessary rates (Sommers & Fannin 2014). Hydration and fluid replacement assists with this process, by maximizing oxygen delivery to all body system tissues (Micheletti, 2013).

A dedicated nursing team must then develop a dedicated routine to provide the patient with ongoing care, including assessing, planning, implementing and evaluating how the patient responds to the therapy provided, and what changes need to be made to ensure the best possible chance at recovery (Micheletti, 2013).

Shock, like that that occurs with MODS, can also have serious and measurable impact on the gastrointestinal track. While the renal system is secondary, not primary, in terms of concern and priority while a patient is in shock, this does not illuminate the very real risk of gastrointestinal perfusion as a result (NANDA, 2010).

Gastrointestinal perfusion occurs when circulation is changed or deteriorated as a result of the redistribution of blood supply that occurs when a patient is in shock (Doenges, Moorhouse, & Murry 2013). The body naturally shuttles blood flow to the areas of the body that are most vital, or where it is most needed. As a result, the blood flow through the small vessels of the abdominal organs is too low to maintain organ function (Doenges, Moorhouse, & Murry 2013).

If allowed to persist, this can ultimately devolve into gastrointestinal hemorrhaging, necrosis of the renal organs, liver dysfunction, and multi-organ failure. This can lead, secondarily to refractory shock (NANDA 2010).

The primary goal of care, is then maintaining perfusion, the second is to decrease CO build up, and hydrogen accumulation, removing potential hepatotoxic agents, and minimizing blood bacteria until balance can be restored.

MODS or Multiple Organ Dysfunction Syndrome occurs when multiple organs are compromised by a deteriorating medical state, such as compromised gastrointestinal perfusion, or undetected infection, which triggers a shock response. Likewise, a shock response can ultimately lead to gastrointestinal perfusion. What is distinct about these conditions, as they worsen, is their ability to compromise all organs; the resulting sepsis results in a significantly high mortality rate. As such, knowing the proper nursing diagnoses and surrounding protocols is essential to positive patient outcomes.

References:

Doenges, M. Moorhouse, F. & Murry, A. (2013). *Nursing Diagnosis Manual: Planning, Individualizing, and Documenting Client Care*. Philadelphia: F. A. Davis.

Ferreira, A., & Sakr, Y. (2014). Organ Dysfunction: General Approach, Epidemiology, and Organ Failure Scores. *Seminars in Respiratory and Critical Care Medicine* Semin Respir Crit Care Med, 32(5), 543-551.

Micheletti, L. (2013). *Multiple Organ Dysfunction Syndrome*. Merion Matters, Inc.

NANDA International. (2010). *Nursing Diagnoses 2009-2011, Custom: Definitions and Classification*. Hoboken, NJ: John Wiley & Sons.

Sommers, M., & Fannin, E. (2014). *Diseases and disorders a nursing therapeutics manual (3rd ed.)*. Philadelphia: F. A. Davis.