

## National Total Parenteral Nutrition Program at MOH in Saudi Arabia

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**Abbreviations:** TPNS: Total Parenteral nutrition services; KFSH & RC: King Faisal Specialist hospital and research center; KCUH: King Khalid University hospital; GAPC: General Administration of Pharmaceutical care; MOH: Ministry of Health; ASHP: American society of health system pharmacist; ASPEN: American Society of Parenteral and Enteral Nutrition

Total Parenteral Nutrition Services (TPNS) had started in Saudi Arabia at King Faisal Specialist Hospital and Research Center (KFSH & RC) and King Khalid University Hospital (KCUH) in the mid-1970s and 1980s respectively [1-4]. These services provided to adults, pediatrics, and neonates. In the early 1990s, King Abdulaziz Medical City National Guard sector and Prince Sultan Military Medical City had been started the services [5]. In 1995; King Saud Medical Complex, the old name of King Saud Medical City (KSMC), started the first TPNS at Ministry of Health (MOH) in Kingdom of Saudi Arabia to service pediatrics patients since then expanded to adults in early 2000s, Later in, several hospitals at MOH had opened those services.

In the beginning starting of the TPNS at KSMC; it consisted of the physician prescribe TPN order through special forms for neonates. Pharmacist reviewing TPN order, pharmacist prepare TPN solution manually, the nurse administers TPN to the patients, the physician monitors the patient on a daily basis and changes the order accordingly, until discontinued TPN. In the late 1990s and early of 2000s adult, TPN clinical pharmacist was involved in this services, there were updating of all previous stages to adults clinical pharmacist (author). The physicians write referral TPN consultation for a clinical pharmacist. The clinical pharmacist review and assess the patient for TPN following ASPEN guidelines, the clinical pharmacist prescribes TPN order on full adults TPN form. The distributive pharmacist reviews TPN order, distributive pharmacist prepares TPN solution by automated compounding, check of calcium and phosphate precipitation electronically. The nurse administer TPN to the patients, the clinical pharmacist monitors the patient on daily basis and changes the order accordingly, the clinical pharmacist gradually discontinued TPN order and switch to Enteral feeding or regular diet.

In 2002-2004; the author worked at Security Forces Hospital as Critical Care Clinical pharmacist and supervisor of IV admixture services, he stated TPNS as mentioned above with updated all pharmacy policy and procedures. The author broad to be first clinical pharmacist prescribed TPN order officially as recommended by director of pharmacy services, director of surgical critical care, director of medical critical care departments, and authorized by director of paramedical department as showed in Figure 1.

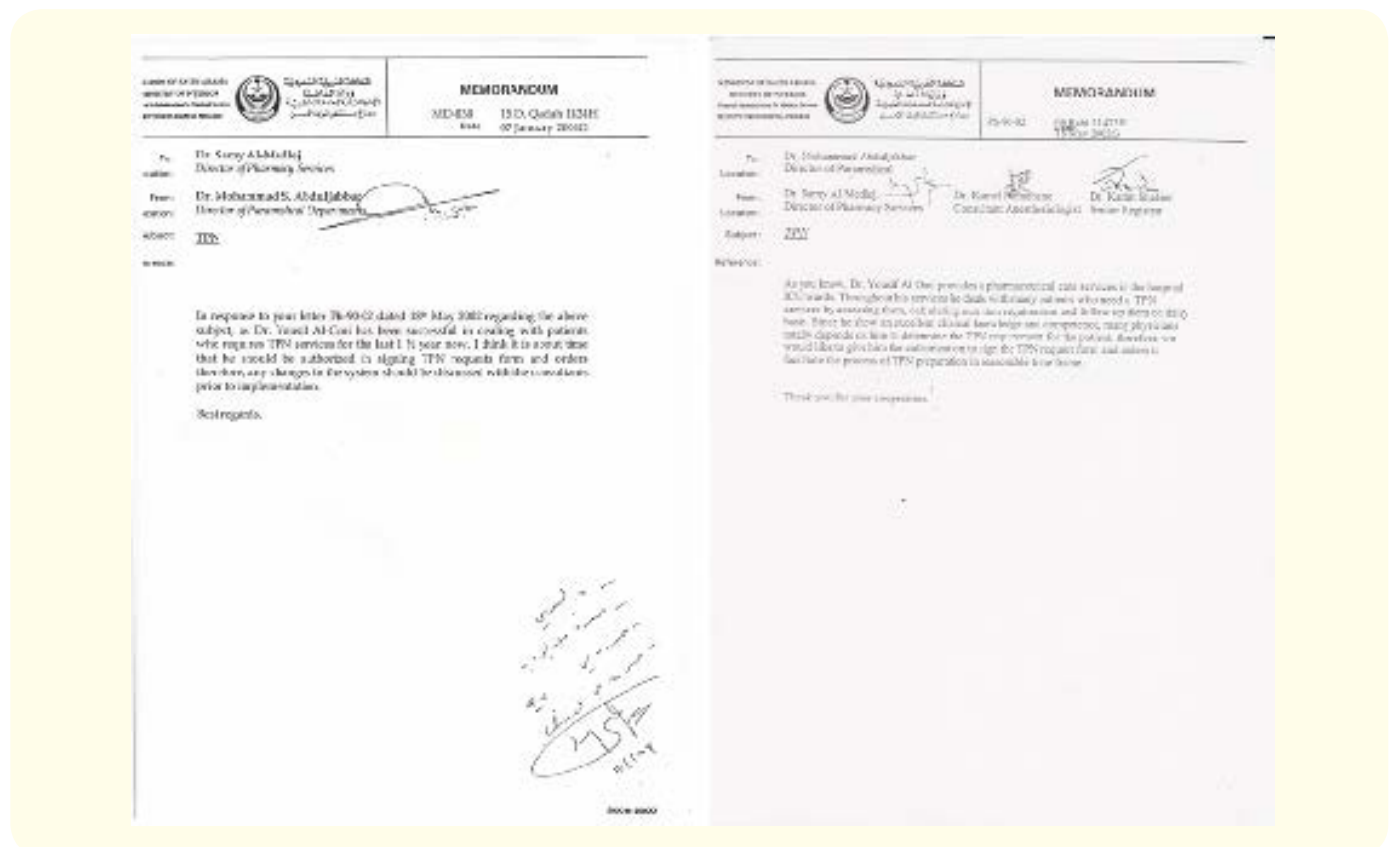
In 2013, General Administration of Pharmaceutical Care had stated strategic planning of Nutrition Support Pharmacy Program at more than ninety MOH hospital pharmacies [5-6]. Those hospitals cover more 80 % of MOH patients; the program organized central committee of Nutrition Support Pharmacy headed by a clinical pharmacist (author) with coordination of TPN pharmacist, and expert members represented from twenty regions in this field. This committee started with five years of a strategic plan with gradually expanded the services. The committee established new Intravenous Admixture with new twenty-eight hospitals and revised old TPNS at of twenty-four hospitals. They conducted a national survey of TPNS at MOH hospitals based on American Society of health system Pharmacists (ASHP) and American Society of Parenteral and Enteral Nutrition (ASPEN) guidelines, the committee updated the services based on results.

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Our plan to write the Parenteral Nutrition and related issues, and publish them in the coming issues of the journal as following;

1. TPNS Pharmacist intervention
2. TPNS Medication errors
3. TPNS Adverse drug reaction
4. TPNS Drug-related problems
5. TPNS medication safety program
6. Cost avoidance of TPNS
7. National survey of TPNS: prescribing and transcribing
8. National survey of TPNS: dispensing and administrating
9. National survey of TPNS: drug monitoring and patient education.
10. Patient satisfaction of TPNS
11. TPNS of pharmacy home health care program
12. TPNS of managed care pharmacy program
13. TPNS of pediatrics pharmacy program
14. TPNS of oncology pharmacy program
15. TPNS of mass gathering pharmaceutical care program

TPNS is crucial services for neonates, pediatrics, and adults' population. Those services are a requirement for National and International standard accreditation. The TPNS is necessary to expand all hospital pharmacies over all Kingdom of Saudi Arabia. These leads to improve patient outcomes, prevent nutrition support related problems, and avoid the unnecessary additional cost.



### Bibliography

1. Al-Jedai A. "International Pharmacy Residency Accreditation: The Saudi Experience". *ACCP International Clinical Pharmacist* 1.3 (2011): 1-2.
2. Al-Qadheeb NS., *et al.* "The First International Residency Program Accredited by the American Society of Health-System Pharmacists". *The American Journal of Pharmaceutical Education* 76.10 (2012): 190.
3. Saddique A. "Development of Clinical Pharmacy services at King Khalid University Hospital and its impact on the quality of health-care provided". *Saudi Pharmaceutical Journal* 20.3 (2012): 273-277.
4. Saddique A. "Poisoning in Saudi Arabia: Ten-year experience in King Khaled University Hospital". *Annals of Saudi Medicine* 21 (2001): 88-91.
5. Alomi YA., *et al.* "Strategic Plan of General Administration of Pharmaceutical Care at Ministry of Health in Saudi Arabia 2012-2022". *Journal of Pharmacy & Pharmaceutical Sciences* 1.3 (2015): 1-8.
6. Alomi YA. "National Pharmacy Practice Programs at Ministry of Health in Saudi Arabia". *Journal of Pharmacy & Pharmaceutical Sciences* 1.2 (2015): 17-18.

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