Background The number of patients infected by HIV and hepatitis has increased over the years. Some of them have swallowing difficulties that require the placement of nasogastric or gastrostomy tubes. These chronic treatments need high compliance rates to avoid antiviral drug resistance and, eventually, treatment failure.

Purpose To review the existing antiviral drugs literature and develop administration recommendations for patients with swallowing problems.

Materials and Methods Formulations and recommendations were obtained directly from the manufacturers, or by a PubMed search and a search on the Micromedex database, when information was not available. A guide published by SENPE with physicochemical and formulation properties of drugs was also checked.

Results Table 1 shows the results. Extensive administration recommendations were found during literature searches but are not included in the present abstract. There was no information about the administration of adefovir, maraviroc or saquinavir through gastrostomy or nasogastric tube.

Conclusions Treatment compliance is key to ensuring the success of chronic antiviral treatments and it is important to consider special situations, such as swallowing problems. This guide for nasogastric or enteral administration helps clinicians to choose the most appropriate treatment. Further research is needed to determine specific bioavailability data.

Abstact DGI-024 Table 1 Antiviral Drug Formulations and Administration

Drug	Solution available (mg/ml solution)	Can be crushed/ sprinkled
abacavir	20	Yes
didanosine	2 g/ml solution powder	Use tablets, not capsules
emtricitabine	10	Discouraged
lamivudine	10, 5	Yes
stavudine	1	Yes
tenofovir		Yes
zidovudine	50	Discouraged
efavirenz	30*	Use capsules
etravirine		Yes
nevirapine	10	Discouraged
atazanavir	50 mg/1.5 g solution powder *	Discouraged
darunavir		Yes
fosamprenavir	50	
indinavir		Discouraged
lopinavir/ritonavir	80/20	Discouraged
nelfinavir		Yes
ritonavir	80	Discouraged
tipranavir	100	
raltegravir		Yes
abacavir/lamivudine	**	
abacavir/lamivudine/zidovudine	**	
zidovudine/lamivudine	**	Yes
tenofovir/emtricitabine		Yes
tenofovir/emtricitabine/efavirenz		Discouraged
boceprevir		Discouraged
telaprevir		Discouraged
ribavirin	40	Discouraged
entecavir	0.05*	
telbivudine	20*	Discouraged

* Not in Spain
** Individual drugs available in solution

No conflict of interest.

DGI-025 | **DEVELOPMENT OF A PROTOCOL FOR THE TREATMENT OF VITAMIN D DEFICIENCY/INSUFFICIENCY IN ADULTS**

[1]M Kieran, [1]D O'Sullivan, [2]J Brady, [3]S McQuaid, [1]C Meegan. [1]Mater Misericordiae University Hospital, Pharmacy Department, Dublin, Ireland (Rep.); [2]Mater Misericordiae University Hospital, Biochemistry Department, Dublin, Ireland (Rep.); [3]Mater Misericordiae University Hospital, Department of Endocrinology, Dublin, Ireland (Rep.)

Background Recent medical research has highlighted that vitamin D deficiency/insufficiency is a significant public health problem. A UK study found that more than 50% of the adult population had insufficiency and 16% had deficiency. [1] Low vitamin D levels have been linked to rickets, malignancies, cardiovascular disease, type 2 diabetes and some autoimmune diseases. [1] Therefore, appropriate management of Vitamin D deficiency/insufficiency is essential.

This increased awareness among prescribers of treating vitamin D deficiency was apparent in the Mater Misericordiae University Hospital (MMUH):

- Medicines Information enquiries regarding treatment of vitamin D deficiency had increased.
- Biochemistry assay numbers for vitamin D (25-hydroxy-vitamin D) had increased.
- Requests to the endocrinology service for guidance on the treatment of vitamin D deficiency had increased.

MMUH clinicians were experiencing difficulty treating patients with vitamin D deficiency/insufficiency as:

- There were no definitive guidelines for the treatment of vitamin D deficiency/insufficiency.
- There is no licenced preparation containing cholecalciferol or ergocalciferol as a single drug formulation in Ireland.

Guidance for MMUH clinicians was therefore necessary.

Purpose To develop a protocol for the treatment of vitamin D deficiency/insufficiency.

Materials and Methods Review of treatment algorithms for treatment of vitamin D deficiency/insufficiency in the literature.

Compilation of vitamin D products currently available in Ireland.

Liaison with MMUH clinical staff to ensure production of a protocol that is applicable to all disciplines.

Results A treatment algorithm was prepared detailing two specific guidelines for the treatment of:

- Vitamin D deficiency (serum 25-hydroxy-vitamin D <25 nmol/L)
- Vitamin D insufficiency (serum 25-hydroxy-vitamin D 25–50 nmol/L)

The protocol recommends vitamin D preparations, including one unlicensed preparation, which are available in the MMUH and accessible in the community.

The protocol also recognises the limitation of giving guidance on treating a condition that may be affected by numerous clinical scenarios or that may require input from specialist physicians. Where applicable, consultation with the relevant medical team(s) is recommended.

Conclusions MMUH patients diagnosed with vitamin D deficiency/insufficiency are treated in a standardised manner in accordance with available clinical evidence. The protocol ensures delays in treatment are minimised and physicians are aware of the particular considerations involved in the management of vitamin D deficiency/insufficiency.

No conflict of interest.

DGI-026 | **DRUG USE IN PATIENTS WITH METASTATIC BREAST CANCER**

A Madrid Paredes, R López Sepúlveda, E Puerta García, N Martínez Casanova, B Cancela Díez, MA Calleja Hernández. *Virgen de las Nieves University Hospital, Pharmacy, Granada, Spain*

Background The historic poor prognosis and survival of metastatic breast cancer (MBC) patients has been improved in the last decades by the introduction of multimodal treatment.

Purpose To analyse the MBC population and describe the prescription profile used.