

## Letter To Editor

### Endocrinology Coverage in The Haryana EML (Essential Medicines List)

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Sir,

World Health Organization defines essential medicines as those drugs that satisfy the health care needs of the majority of the population (1). The latest 18th WHO Essential Medicines List came up in 2013 (2) whereas the latest National List of Essential Medicines (NLEM) of India came up in 2011 (3). Depending upon pattern of prevalent diseases and financial resources, each state government prepares its own EML. This list is especially required for procurement and supply of medicines in the public health care sector. The latest EML given by Haryana came up in 2013 (4). This letter critically evaluates the strengths and weaknesses of Haryana EML from an endocrinology perspective.

Haryana EML describes the essential drugs, their available doses, dosage forms and their availability at general hospital (GH), community health centre (CHC), primary health centre (PHC) and subcentre (SC).

Haryana EML includes levothyroxine in doses of 25, 50 and 100 µg whereas NLEM advocates only 50 and 100 µg dose. Haryana EML also excludes iodine solution which has limited therapeutic usefulness in modern thyroidology, but is still present in NLEM. Carbimazole and levothyroxine availability is considered essential only in GHs in Haryana. Propylthiouracil (instead of carbimazole) is included in WHO EML (6), but not in NLEM and Haryana EML.

State EML seems better than NLEM in including safer secretagogues like glimepiride and gliclazide in addition to glibenclamide. 1 gm sustained release formulation of metformin hydrochloride has been made available in the GHs in Haryana, thus scoring over NLEM. The state list entirely misses on meglitinide analogues, GLP-1 receptor agonists, DPP-4 inhibitors

and thiazolidinediones. Both soluble insulin and premixed insulins (30/70) are provided in the GHs. In the next update of this list we foresee the replacement of lente insulin (no longer manufactured) with Neutral Protamine Hagedorn insulin.

This list advocates the availability of dexamethasone and hydrocortisone injection at all levels whereas NLEM does not include dexamethasone injection for PHCs. However 5 mg dexamethasone tablets are available only in GHs. Another possible addition to state list could be of 5 mg prednisolone tablet. Haryana makes available prednisolone suspension in GHs, which is not seen even in NLEM. Methyl prednisolone (in GHs) and adrenaline injections are included in state EML. But this list is deficient (like NLEM) in fludrocortisone and oral hydrocortisone, thus posing a problem for chronic adrenal insufficiency patients.

Haryana EML surprisingly does not mention androgens as essential drugs whereas NLEM suggests its necessary availability in all GHs.

Oral ethinylestradiol tablets are available only in the GHs of the state. Inclusion of 0.06% ethinylestradiol in gel and patch formulation in GHs for menopausal patients is worth complementing. Haryana EML includes medroxyprogesterone both in oral and injection formulation whereas in NLEM, only oral formulation is mentioned. Another favourable point of Haryana EML over NLEM is the inclusion of 100 mg progesterone tablet. In a country facing population explosion, essential availability of combined OCs only in GHs of state seems astonishing. Low dose OCs should also be provided to ensure better patient care. Haryana EML is unique in including centrochroman as an essential drug. However, more expensive injectable contraceptives, implants and

levonorgesterel releasing IUCDs are missing from the list. Considering the increasing incidence of infertility, inclusion of clomifene citrate in all GHs is justified.

Methyl ergometrine, (oral and injectable) and 5 IU/ml oxytocin has been provided in all health care settings in Haryana. Mifepristone (200 mg) is provided by Haryana in all CHCs and GHs, but has been inadvertently mentioned in the category of antioxytotics. Estrogen gel has also been listed under oxytotics in state EML. Betamethasone injection as an anti oxytotic has been included in NLEM but not in state or WHO EML.

Due to less prevalence of pituitary diseases, the drugs acting on anterior pituitary have not been included in NLEM or WHO EML but Haryana EML includes octreotide (50 µm/ml injection).

Inclusion of leuprolide acetate, anastrazol and letrozol (2.5 mg tablet) in Haryana for prostate and breast cancer patients is worth appreciating. These drugs do not yet find a place in NLEM and WHO list. However, tamoxifen citrate which should be present in both 10 and 20 mg dose according to WHO EML and NLEM, is made available only in 20

mg dose in Haryana.

Haryana EML mentions cholecalciferol 1000 IU (which is better than ergocalciferol in terms of safety, economy and popularity) and elemental calcium (150 mg capsules) in form of calcium hydroxide and calcium oxide as essential drugs. On the contrary, NLEM prefers to provide ergocalciferol, calcium carbonate and calcium gluconate injection.

In many aspects, Haryana EML scores over NLEM like inclusion of better sulfonylureas like glimepiride and gliclazide, pre mixed insulins, prednisolone suspension, octreotide, drugs like leuprolide acetate, letrozol and anastrozol for cancer patients, bethamethasone as anti oxytotic, cholecalciferol rather than ergocalciferol, centrochroman and gel and patch formulation of ethinylestradiol. Iodine solution has also been rightly omitted from the list. But this list would become a near perfect document from an endocrinology perspective if it also includes meglitinide analogues, GLP-1 receptor agonists, DPP-4 inhibitors, thiazolidinediones, rapid acting, pre mixed and long acting insulin analogues, fludrocortisone, oral hydrocortisone, androgens, levonorgesterel releasing IUCDs and low dose hormonal contraceptives.

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