GUIDELINES FOR MANAGEMENT OF HYPERLACTATEMIA IN PATIENTS ON HAART

DIAGNOSIS
Patients complaining of vague general malaise, loss of weight, loss of appetite, myalgia, weakness and fatigue, nausea, vomiting, abdominal pains, tachypnoea, unexplained tachycardia with history of HAART including NRTI's (ddl, d4T, 3TC, ZDV, ABC) for more than 1-4 months should be investigated for hyperlactatemia and lactic acidosis, blood gas, bicarbonate and U&E.

LACTIC ACIDOSIS
Lactate >/= 5 mmol/l, pH < 7.35, sodium bicarbonate < 20 mmol/l and/or increased anion gap.

OTHER INVESTIGATIONS
LFT, FBC, Glucose, Amylase, CPK, Lipase, LDH.
Cultures (to identify infectious processes).
CXR, ECG.

MANAGEMENT OF AMBULANT PATIENTS

1. - Mildly symptomatic.
   a. – Lactate 2.5-5, Bicarbonate Normal (>/= 20), anion gap Normal (12-20) monitor closely, do not stop ARV but search for other factors (sepsis, malignancies, hepatitis, pancreatitis, etc), recheck lactate after 3 days and there after weekly until normalized. If lactate can not be monitored, symptoms are severe or get worse stop and refer to CDC at Regional or Tertiary level.
   b. - Lactate 5 – 10 stop ARV drugs, observe as inpatient for 1 – 2 days; administer oral vitamins (B1 100mg and B complex 1 tab bd) and actively search for other causes of hyperlactatemia and close monitoring as above.

2. - Very ill.
   a. - Lactate >/= 5 admit stop ARV drugs and actively search for trigger events.
   b. - Lactate >/= 5, pH < 7.35, Bicarbonate < 20 and increased gap (LACTIC ACIDOSIS) admission in ICU, levels > 10 = life threatening emergency.
   Report to CDC as soon as the patient is admitted for statistic control and follow up purposes.

MANAGEMENT OF LACTIC ACIDOSIS

1. - Stop all drugs
2. - Hydration with Normal Saline Solution.
4. - Oxygen per mask or mechanical ventilation support.
5. - Administration of Thiamine 100mg and B-complex 1 amp IV 12hourly.
6. - Peritoneal or Hemodialysis with Sodium Bicarbonate for patients severely acidotic pH < 7.15 and lactate >/=10.
7. - Active search for other causes and treat accordingly.
8. - The use of Sodium Bicarbonate IV is controversial and many authors consider its use risky and may be linked to many fatalities. Sodium bicarbonate should be used when the pH is < 7.15.
HOW TO REINITIATE TREATMENT
1. - Patients symptomatic and non acidotic hyperlactatemia (> 5 mmol/l ) can be reinitiated after normalization of lactate levels with close monitoring during the first 8/52 AZT+3TC+EFV/NVP, if lactate elevation occurs on this regimen change to NRTI spare regimen as below. Continue vitamins (B complex1 tab and Thiamine100 mgs) daily.
2.- Patients with Lactic Acidosis should be reinitiated using a NRTI spare regimen once completely asymptomatic and lactate levels are normal, follow up monthly for at least 12/52, EFV/NVP+ Kaletra (4 caps q 12h). Continue vitamins (B complex 1 tab daily and Thiamine 100 mgs) daily. Modification and re-initiation of Rx should be done at a regional or tertiary level.

It is suggested that if the patients are not vomiting do not have significant steatohepatitis nor pancreatitis should receive Kaletra 4 tabs bd to cover “NNRTI tail”

Dr. Ernesto N Hernandez Perez
Principal Medical Officer
CDC Greys Hospital