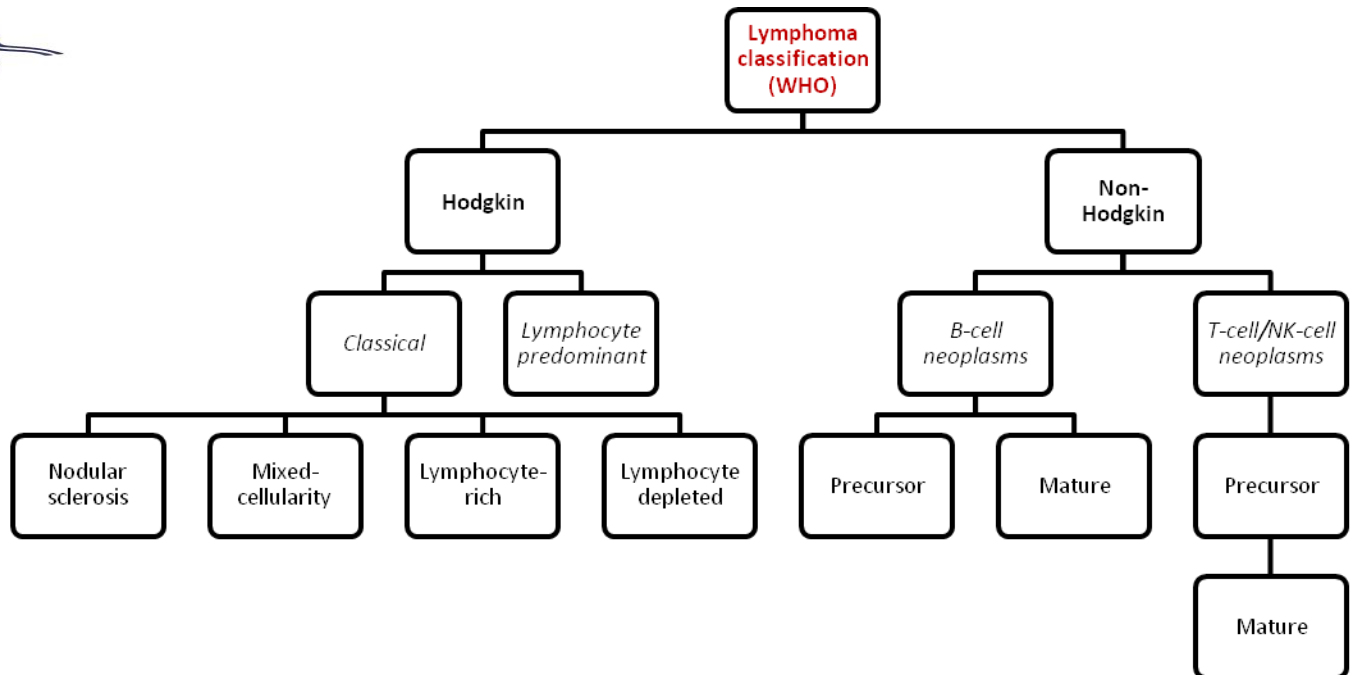
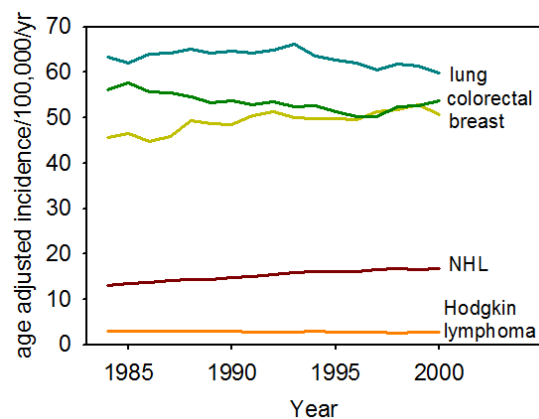




Problem 10 – Unit 6 – Epidemiology: lymphomas



- Lymphoma is the 5th most frequently diagnosed cancer in both males and females (although the risk is higher in males).
- The incidence (appearance of new cases) of Hodgkin lymphoma is stable while that of non-Hodgkin lymphoma is increasing.



- The graph above compares the incidence of lymphomas to other cancers in Canada. It shows that the most common type of cancer is lung cancer, followed by colorectal cancer, breast cancer and then non-Hodgkin lymphoma which is increasing in incidence and Hodgkin lymphoma which is stable.

- Hodgkin lymphoma:

• Epidemiology:

- ✓ It is composing 14% of malignant lymphomas and 0.5% of all malignancies.
- ✓ In USA, there are 8000 new cases/yr and 1500 deaths/yr.
- ✓ Over the past 30 years, Hodgkin lymphoma has become stable (↓mortality rates).
- ✓ Men have a higher risk to develop Hodgkin lymphoma.
- ✓ Whites > Blacks > Asians.
- ✓ Incidence is more common in young adults.
- ✓ Risk factors involved are: EBV – HIV – woodworking – farming – rare familial aggregations.
- ✓ Associated (etiological) factors:
 - * Possible genetic predisposition.
 - * Caucasian > non-Caucasian.
 - * Smaller family size with higher socio-economic status (↓ childhood infections).
 - * EBV infection.



- ✓ Results of treatment:

Stage	5-year overall survival
I	90%
II	90%
III	80%
IV	65%

- **Non-Hodgkin lymphoma:**

- **Epidemiology:**

- ✓ Most common hematologic malignancy.
- ✓ 5th leading cause of cancer deaths.
- ✓ Incidence: 60,000 new cases/yr.

Note: the incidence is rising (not stable such as Hodgkin lymphoma) especially in farming states which indicates a possible role of herbicides (مبيدات الأعشاب) and insecticides (مبيد الحشرات). It is the 2nd most rapidly rising malignancy and considered now as an epidemic. In addition, it is more common in elderly.

- ✓ Other risk factors of non-Hodgkin lymphoma:
 - * Immunodeficiency (HIV or post-transplant).
 - * Auto-immune diseases.
 - * Positive family history of lymphoma.
 - * Ionizing radiation.
 - * Infectious agents: EBV, HHV-8, HCV, H.pylori.

- **The 5-year survival data in Hodgkin lymphoma is more than those of non-Hodgkin lymphoma.**

- **Hodgkin lymphoma (future directions):**

Limited stage	Advanced stage
↑ Cure rate	Cure rate around 50-70%
Goal is to minimize late complications	-
Trials looking at CMT with less chemotherapy and less radiation.	Trials comparing ABVD to Stanford V