



MPN HORIZONS
2022 LEARN, SHARE, GROW

7th INTERNATIONAL CONFERENCE
FOR ORGANISATIONS REPRESENTING
PATIENTS WITH MPN

MPN Advocates Network

HYBRID MEETING • NETANYA • ISRAEL • 18.-20.11.2022.

Comorbidities in MPN

Gabriela Hobbs, MD

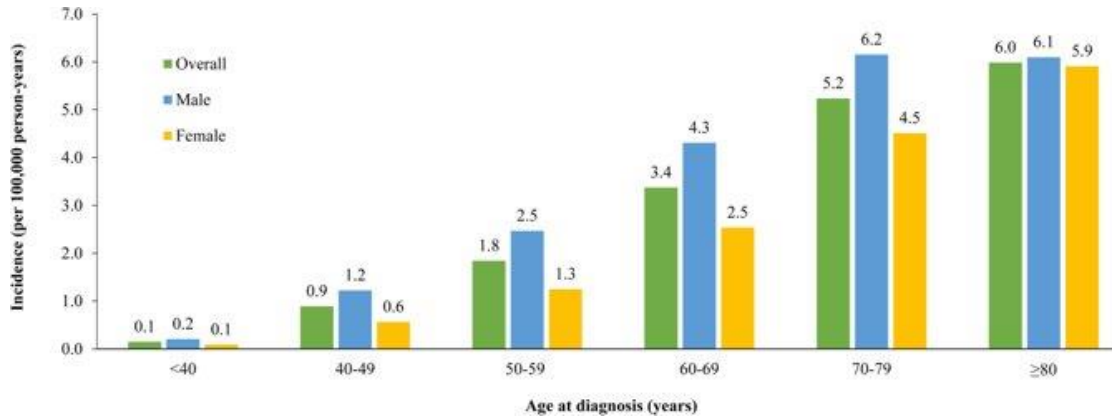
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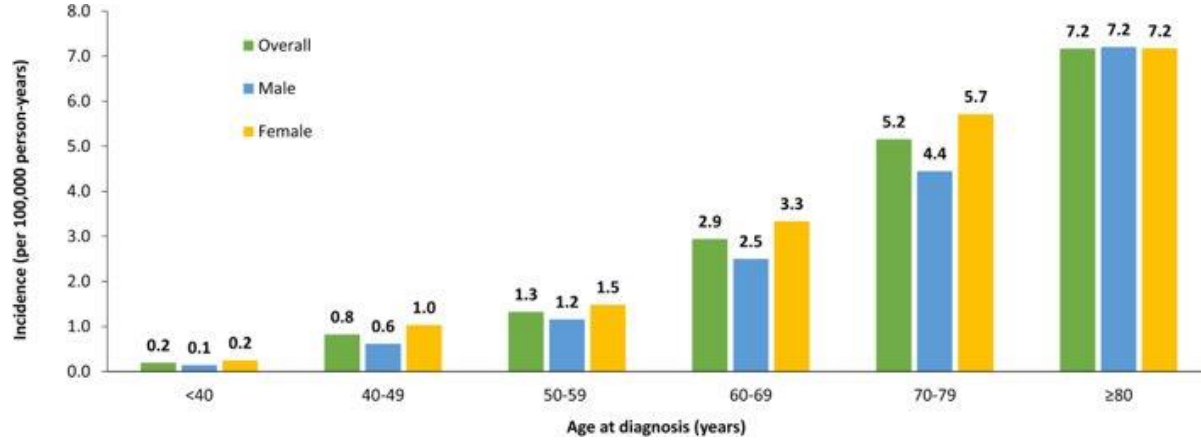
Outline

- MPN demographics
- Review of treatment algorithm
- Managing MPNs with comorbidities
 - Cardiovascular disease
 - Second primary malignancies
 - Psychiatric comorbidity
- Influence of comorbidities in the management of myelofibrosis

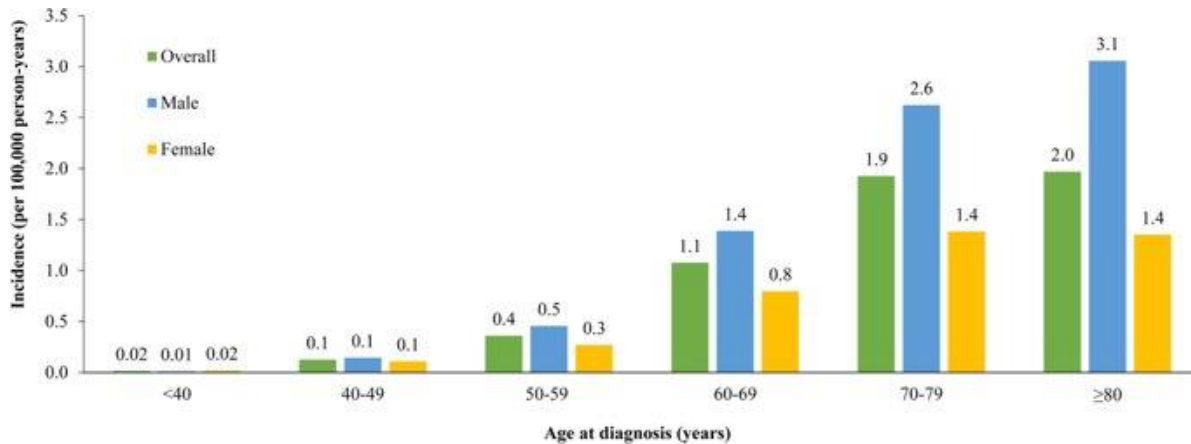
PV



ET



MF



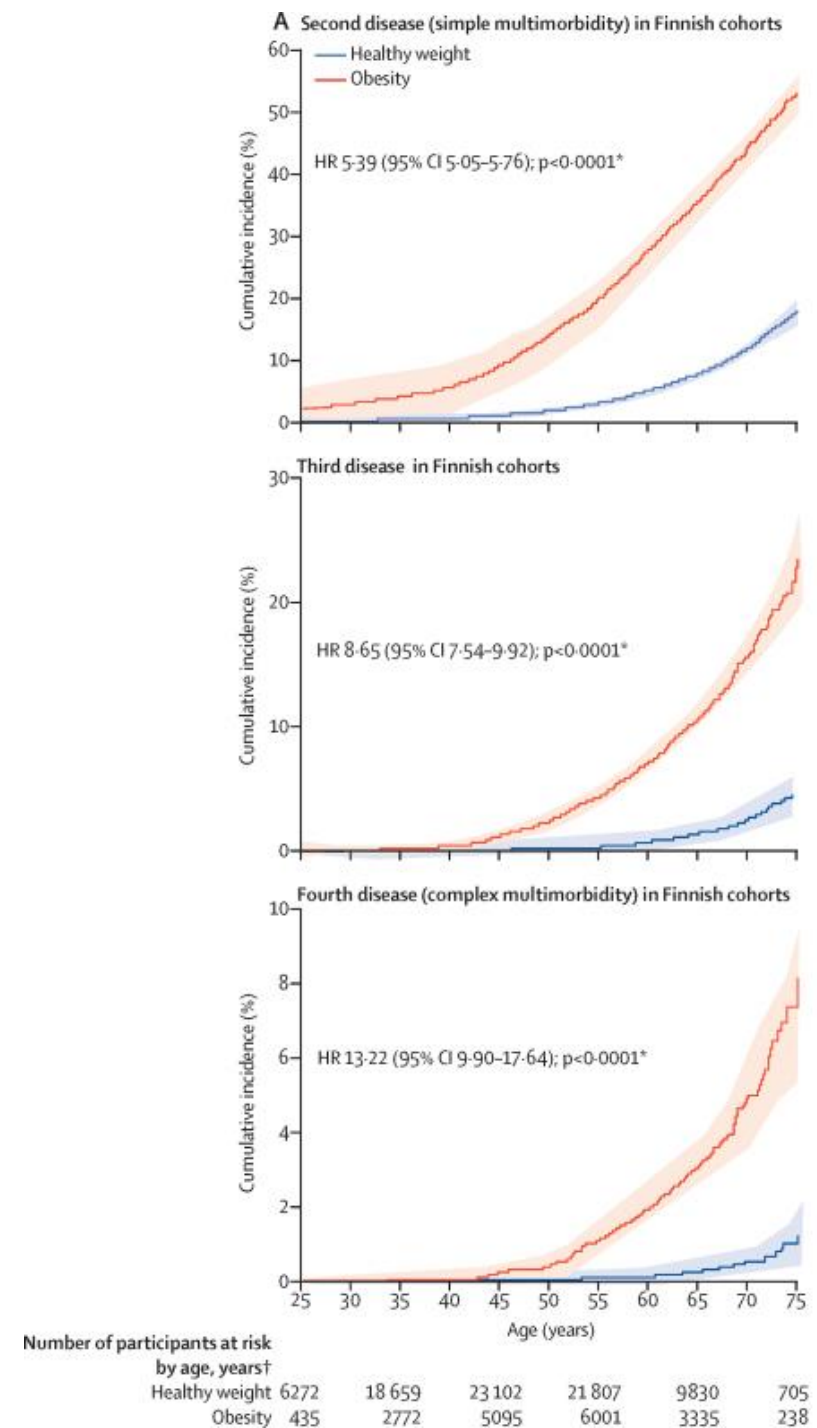
MPNs occur more commonly in patients over 50

As people age, more diseases = worse outcomes.

Cardiovascular disease = 30% of deaths worldwide

85% of heart attack and stroke.

Kivimäki *Lancet Diabetes Endocrinol.* 2022;10(4):253-263.



Treatment Algorithm- based on age and influenced by comorbidities

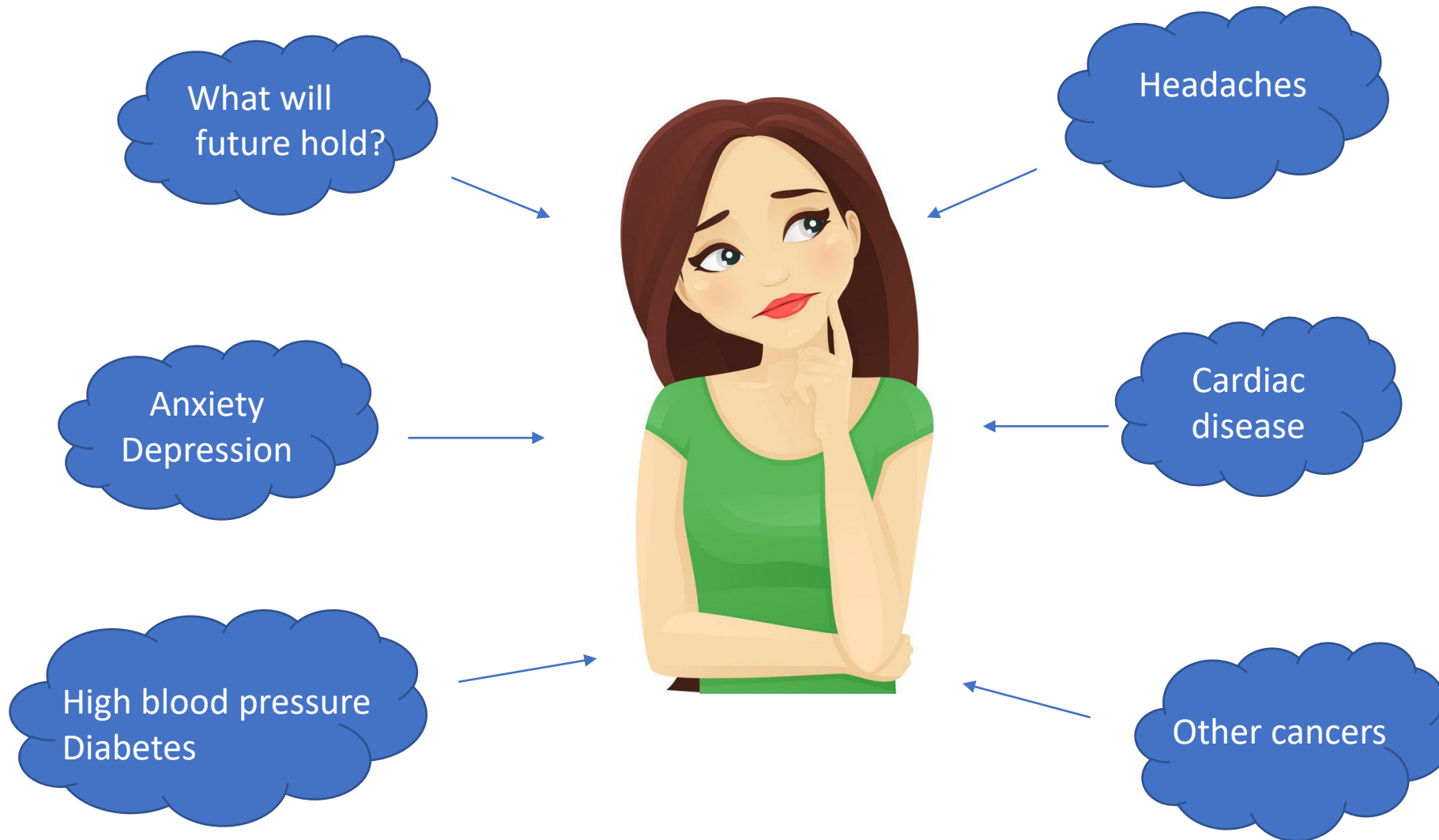
Polycythemia vera

Risk Categories	
Low-risk (Age<60 and no blood clot history)	Aspirin + Phlebotomy Ropeginterferon
High-risk (age >60 OR blood clot history)	Aspirin + phlebotomy + cytoreduction (hydroxyurea, interferon)
High-risk and refractory to hydroxyurea	Ruxolitinib (or hydroxyurea/interferon if not used previously)

Essential thrombocythemia

Risk Categories	
Very low risk (Age <60, no JAK2, no thrombosis)	Observation.
Low-risk (Age<60, JAK2 mutation and no thrombosis)	Aspirin
Intermediate risk (age >60, no JAK2, no thrombosis)	Aspirin or cytoreduction
High-risk (age >60 +JAK2 OR thrombosis)	Aspirin + cytoreduction
High-risk and refractory to hydroxyurea	<65-interferon >65-busulfan

Treating the whole patient



Cardiovascular disease

- CV disease is common in the population
- MPN accelerates CV disease via inflammation
- Pulmonary HTN is more common in MPN patients

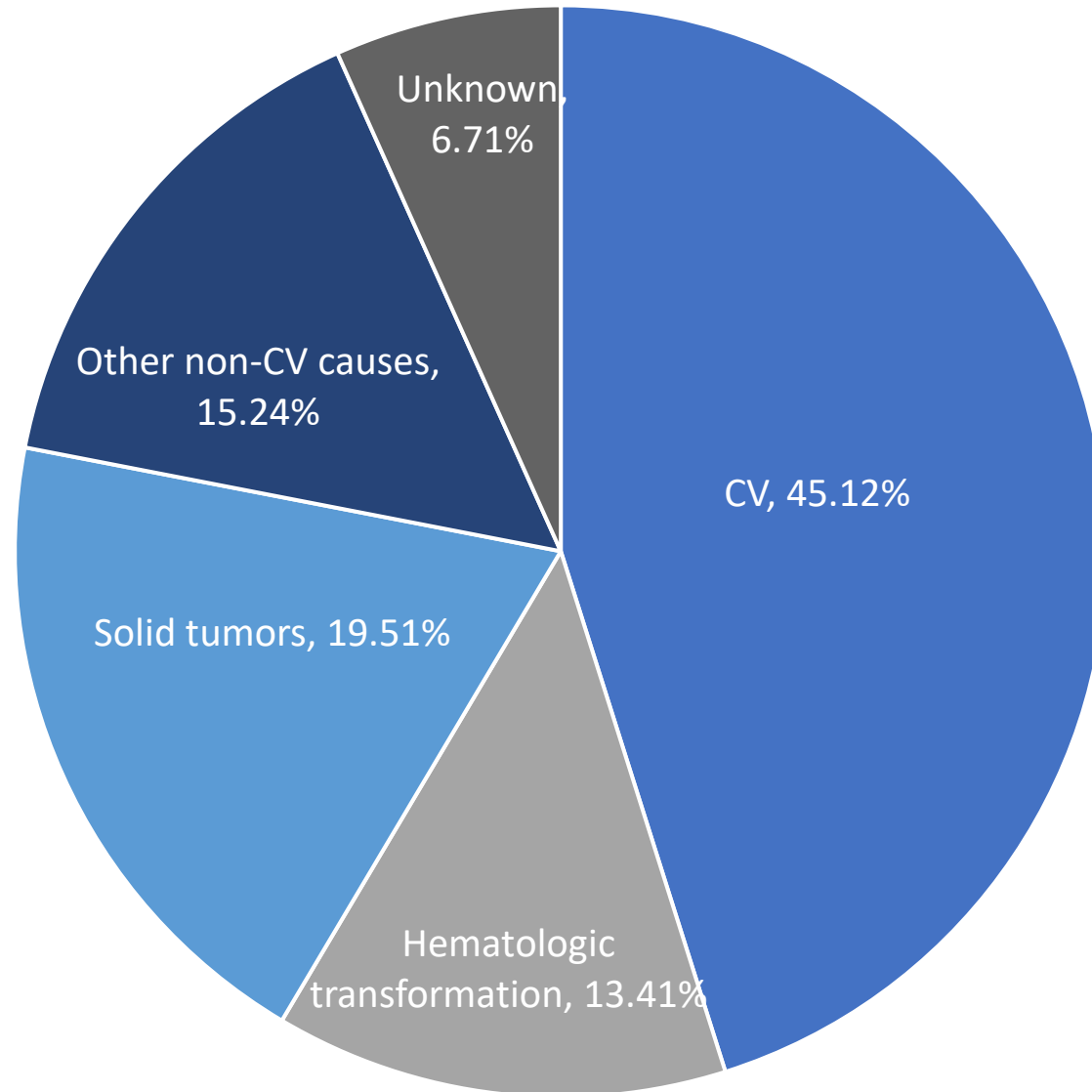
What to do?

- Aggressive lifestyle modification
- Ensure patients have primary care physician
- CV risk factor management
- Smoking cessation counseling
- Cytoreduction and aspirin

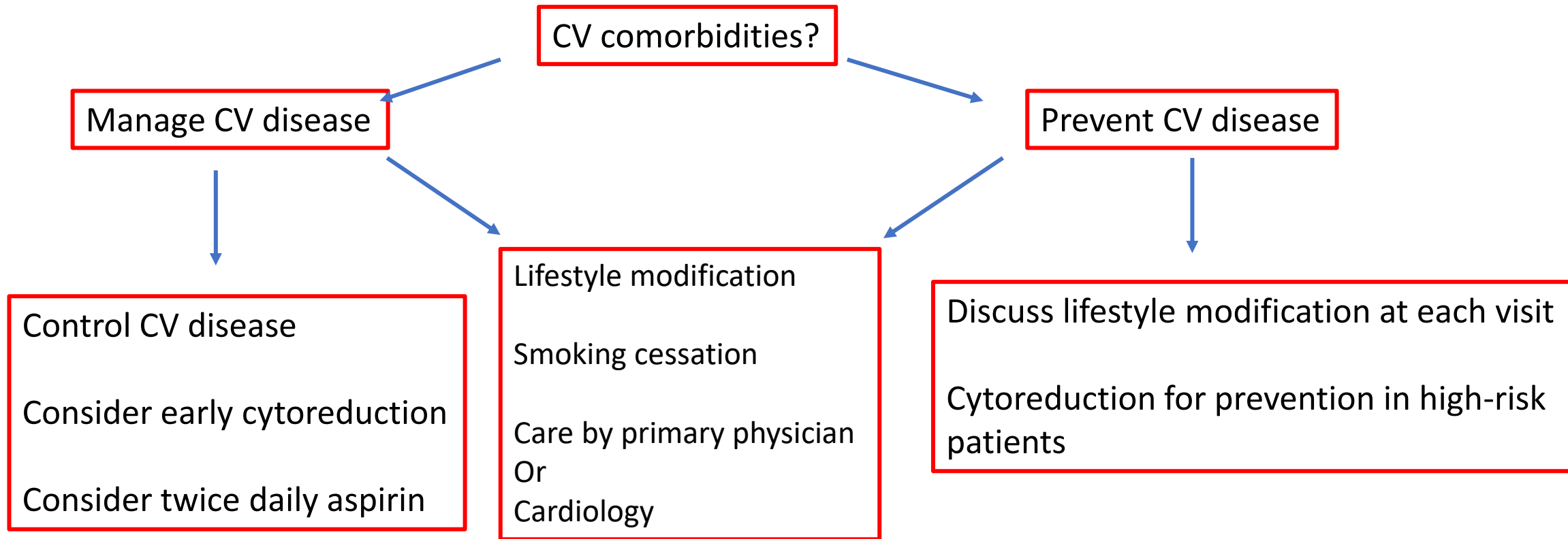


Causes of Death (N = 164)

Mortality in PV



Cardiovascular disease



Second primary malignancies

- Patients with MPN are at risk for:
 - Transformation from ET/PV-->MF and AML
 - Other hematologic malignancies, including lymphoma and myeloma
 - Solid tumors
 - Skin cancers (in particular with hydroxyurea)

Site of second malignancy	Number of Patients with Second Cancer (n)	Cumulative Incidence (%)		Incidence Rate Ratio Compared to General Population* (95% CI)	Nominal P-value
		5 Year	10 Year		
All sites**	1866	9.4	15.2	1.67 (1.59, 1.75)	<0.0001
AML and MDS	230	1.1	2.1	8.76 (7.36, 10.41)	<0.0001
Second MPN Diagnosis	74	0.4	0.6	10.77 (7.77, 14.90)	<0.0001
Non-AML/MPN Second Malignancy***	1575	8.0	12.7	1.44 (1.37, 1.52)	<0.0001

Second primary malignancies

- Ensure patient has a primary care provider
- Ensure patient is up to date with health care screening
 - Colonoscopies
 - Pap smears
 - Mammograms
 - Skin exams and dermatology care for hydroxyurea patients
- Monitor complete blood counts for signs of transformation

Psychiatric comorbidity in MPN

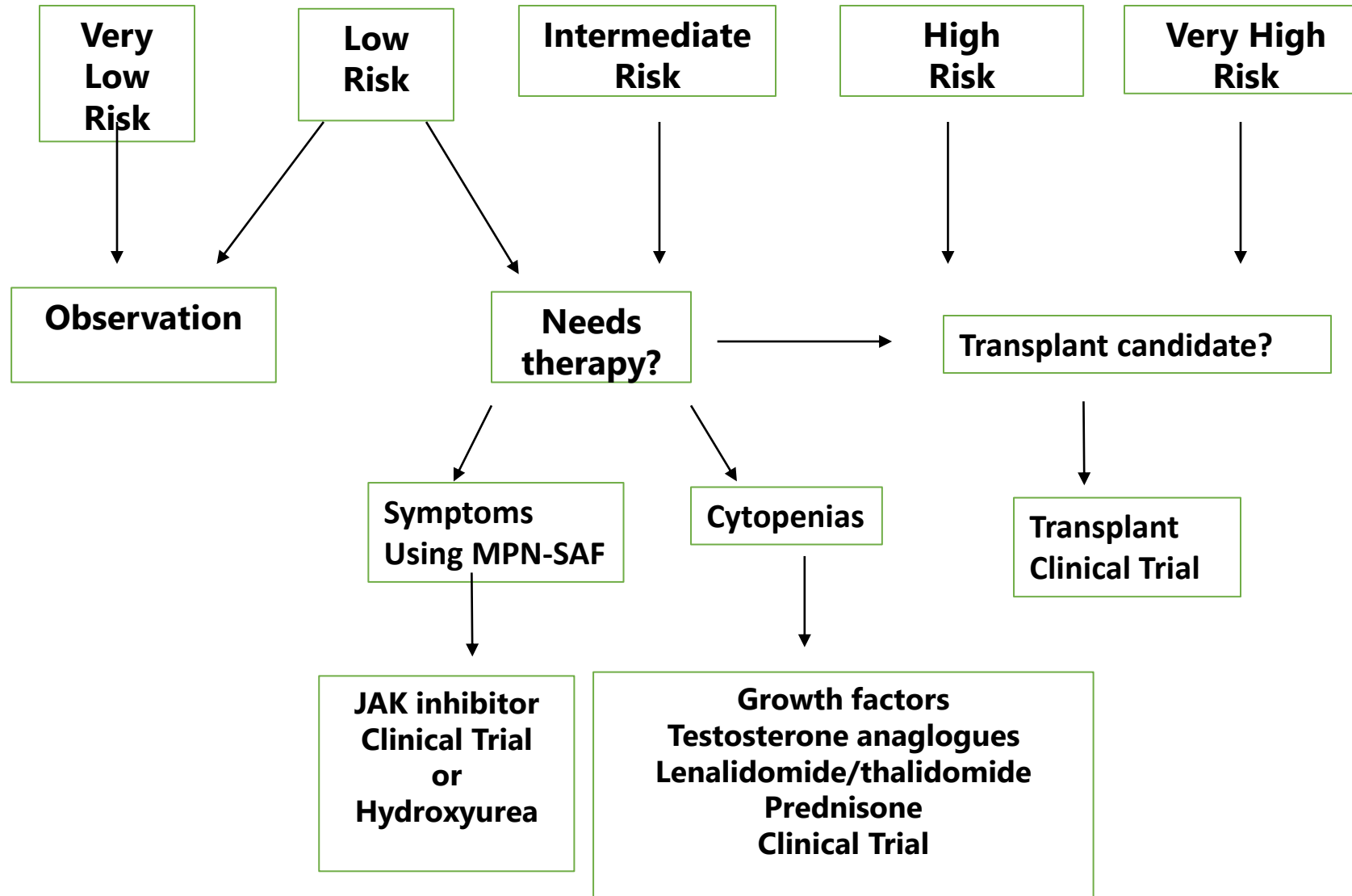
- Up to 25% of patients report depressive symptoms
 - Also less likely to exercise
 - More likely to smoke
 - 30% on antidepressants
 - Taking medications for pain increased symptoms of depression
- Depression contributes and confounds MPN symptomatology

Other considerations

- MPNs are inflammatory diseases, many organs can be affected
- Ensure patients are up to date with healthcare screening
- MPNs can affect bone health
- MPNs can affect renal health
- MPN patients are more likely to have autoimmune disease

What about myelofibrosis patients?

Treatment by MIPSS70+ Criteria



Comorbidities affect transplant eligibility

- Hematopoietic stem cell comorbidity index-
 - Predicts risk of 2 year therapy related mortality
 - Includes:
 - Obesity
 - Prior malignancy
 - Heart, lung, liver and kidney disease
- Low risk: 14%
- High risk: 41%

How do comorbidities affect MPN patients?

- Higher health care utilization compared to age-matched controls
- Loss of productivity at work
- High-comorbidity impacts eligibility for treatment

Summary

- MPN patients suffer from more than one disease
- The MPN itself should be considered a CV comorbidity
- Managing an MPN patient = managing the whole patient
- Ensuring patients have good primary care is critical
- Comorbidities affect patients across the MPN disease spectrum

תודה רבה לך



שאלות?



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