Tan Tock Seng Hospital
NHG Health

Peripheral T cell Lymphoma (Nodal)

Extranodal NK/T cell lymphoma

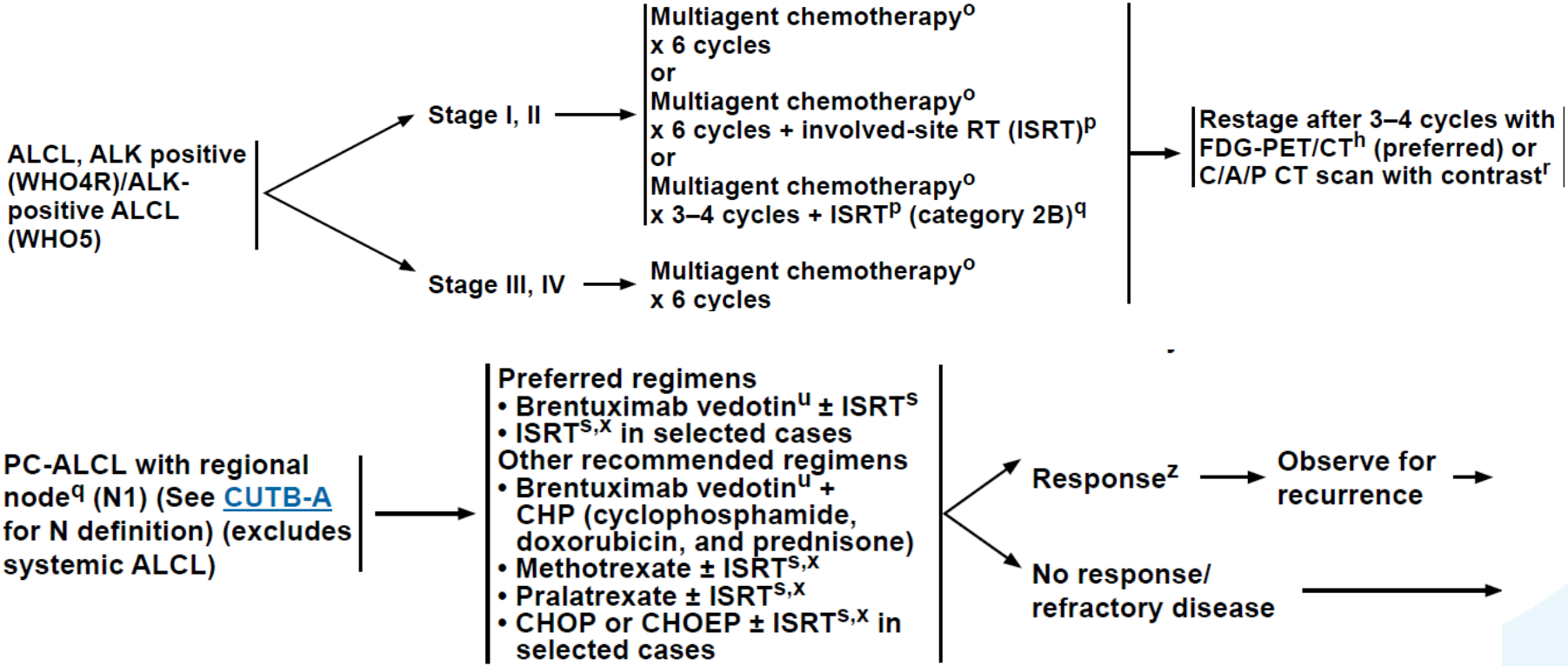
Ong Kiat Hoe

Frontline Treatment

- Mature T Cell Neoplasms (WHO5) (nodal)
  - a. Anaplastic Large Cell Lymphoma (ALK-pos/ ALK-neg)
  - b. Nodal T-Follicular Helper Cell Lymphoma
  - c. Peripheral T-Cell Lymphoma, NOS
- Mature T Cell Neoplasms (WHO5) (extranodal)
  - a. EBV-pos NK/T Cell Lymphoma

Anaplastic Large Cell Lymphoma

NCCN guidelines, T cell lymphoma, V2, 2025, Primary Cutaneous Lymphomas, V3, 2025



Anaplastic Large Cell Lymphoma

NCCN guidelines, T cell lymphoma, V2, 2025,
Brink. Blood 2022;140:1009.
Horwitz. Lancet 2019;393:229.

FIRST-LINE THERAPY[c]

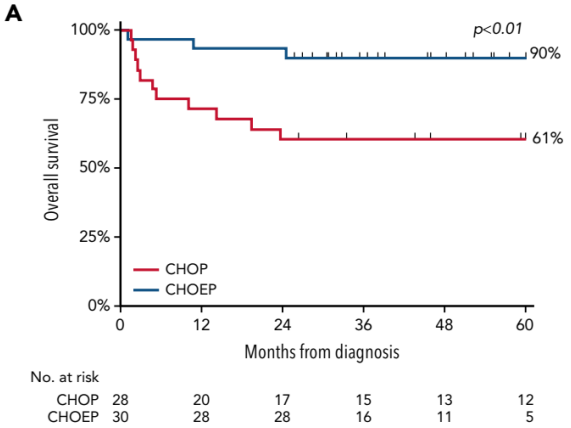
ALCL[d]

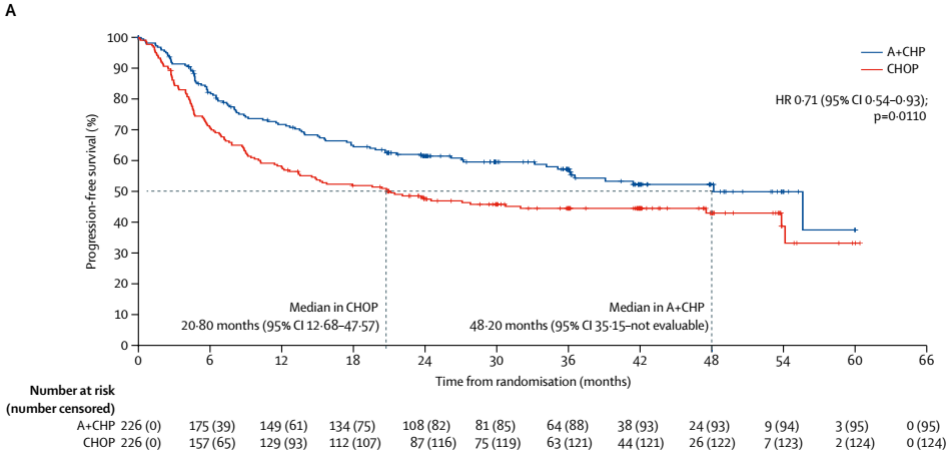
Preferred regimen

- Brentuximab vedotin + CHP (cyclophosphamide, doxorubicin, and prednisone)[e] (category 1)

Other recommended regimens (alphabetical order)

- Dose-adjusted EPOCH (etoposide, prednisone, vincristine, cyclophosphamide, and doxorubicin)
- CHOEP[f] (cyclophosphamide, doxorubicin, vincristine, etoposide, and prednisone)
- CHOP (cyclophosphamide, doxorubicin, vincristine, and prednisone)





ALCL (ALK-neg), TFHL, PTCL-NOS

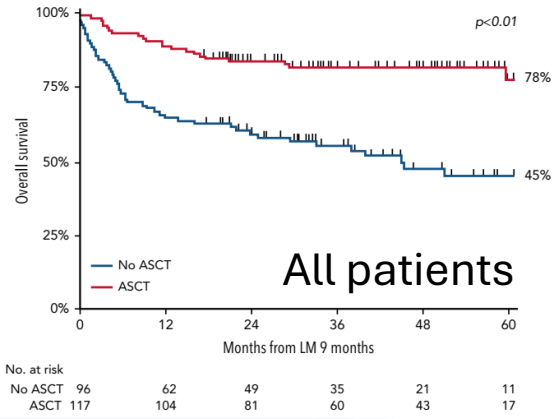
NCCN guidelines, T cell lymphoma, V2, 2025
Brink. Blood 2022;140:1009.

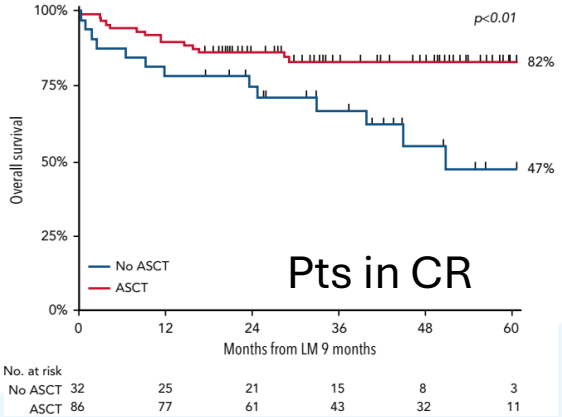
Other histologies
- PTCL-NOS
- ~~EATL~~
- ~~MEITL[g]~~
- AITL (WHO4R)/nodal TFH cell lymphoma, angioimmunoblastic type (WHO5)
- *Nodal PTCL, TFH* (WHO4R)/nodal TFH cell lymphoma, NOS (WHO5)
- FTCL (WHO4R)/nodal TFH cell lymphoma, follicular type (WHO5)

Preferred regimens (alphabetical order)
- Brentuximab vedotin + CHP for CD30+ histologies[e,h]
- CHOEP[f]
- CHOP
- Dose-adjusted EPOCH

Other recommended regimens (alphabetical order)
- CHOP followed by IVE (ifosfamide, etoposide, and epirubicin) alternating with intermediate-dose methotrexate (Newcastle Regimen; studied only in patients with EATL)[i]
- HyperCVAD (cyclophosphamide, vincristine, doxorubicin, and dexamethasone) alternating with high-dose methotrexate and cytarabine (category 3)

FIRST-LINE CONSOLIDATION
- Consider consolidation with autologous HCT





EBV-pos NK/T Cell Lymphoma

Tse. J Hematol Oncol 2022;15: 74

Diagnostic work-up
Biopsy of the involved tissue for histological examination
Immunophenotype: CD2, sCD3, CD3ε, CD4, CD7, CD8, CD56, TIA-1, TCRαβ, TCRγδ
EBER by ISH
TCR gene rearrangement study

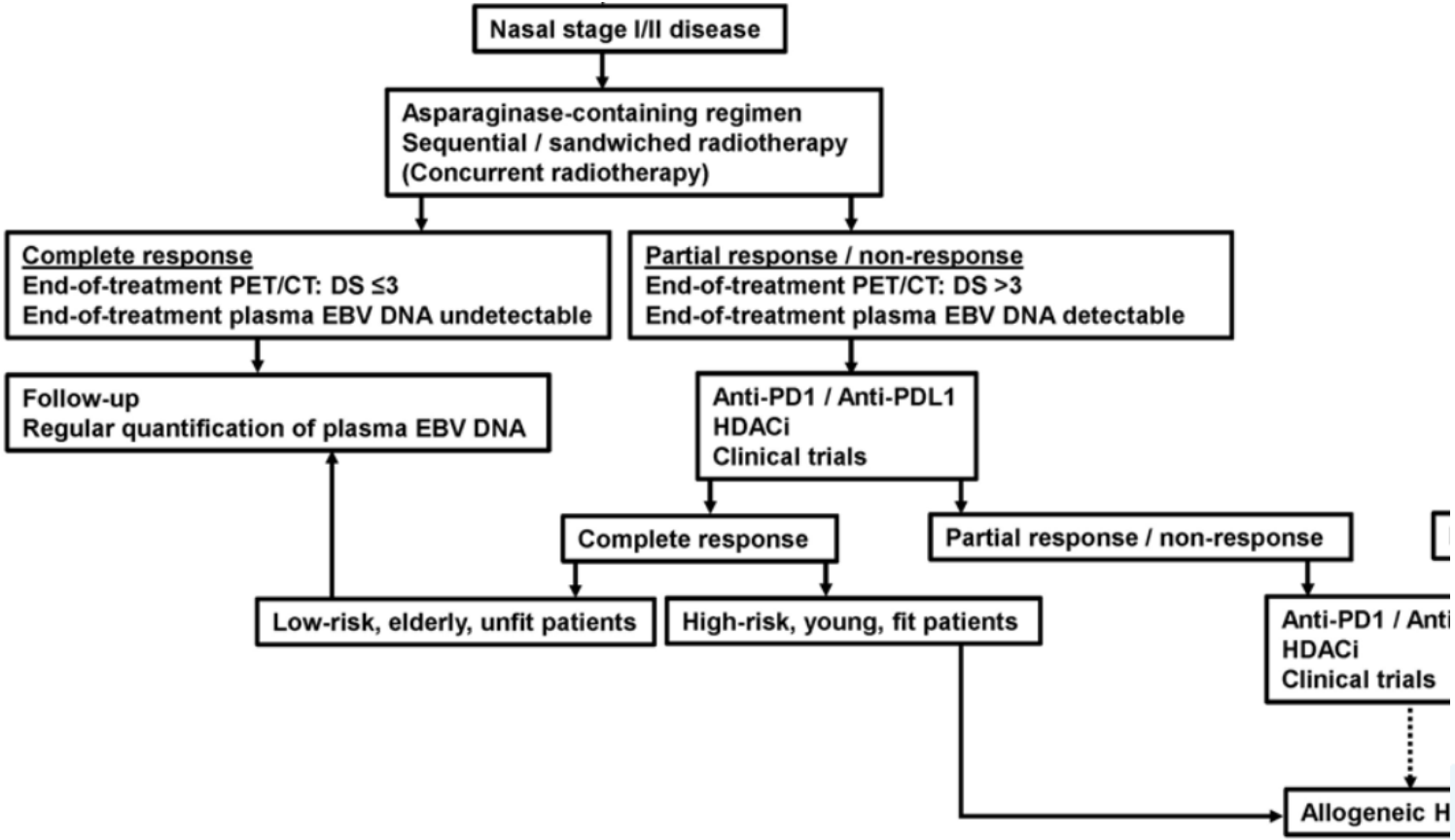
↓

Staging and prognostication
Positron emission tomography / computed tomography (PET/CT)
Bone marrow biopsy: histology, immunophenotyping, EBER ISH
Quantification of plasma EBV DNA
Blood count, biochemistry, LDH, performance status, organ function

If present extra-nasally, ensure exclusion of systemic nasal type disease

EBV-pos NK/T Cell Lymphoma

Tse. J Hematol Oncol 2022;15: 74



EBV-pos NK/T Cell Lymphoma

Tse. J Hematol Oncol 2022;15: 74

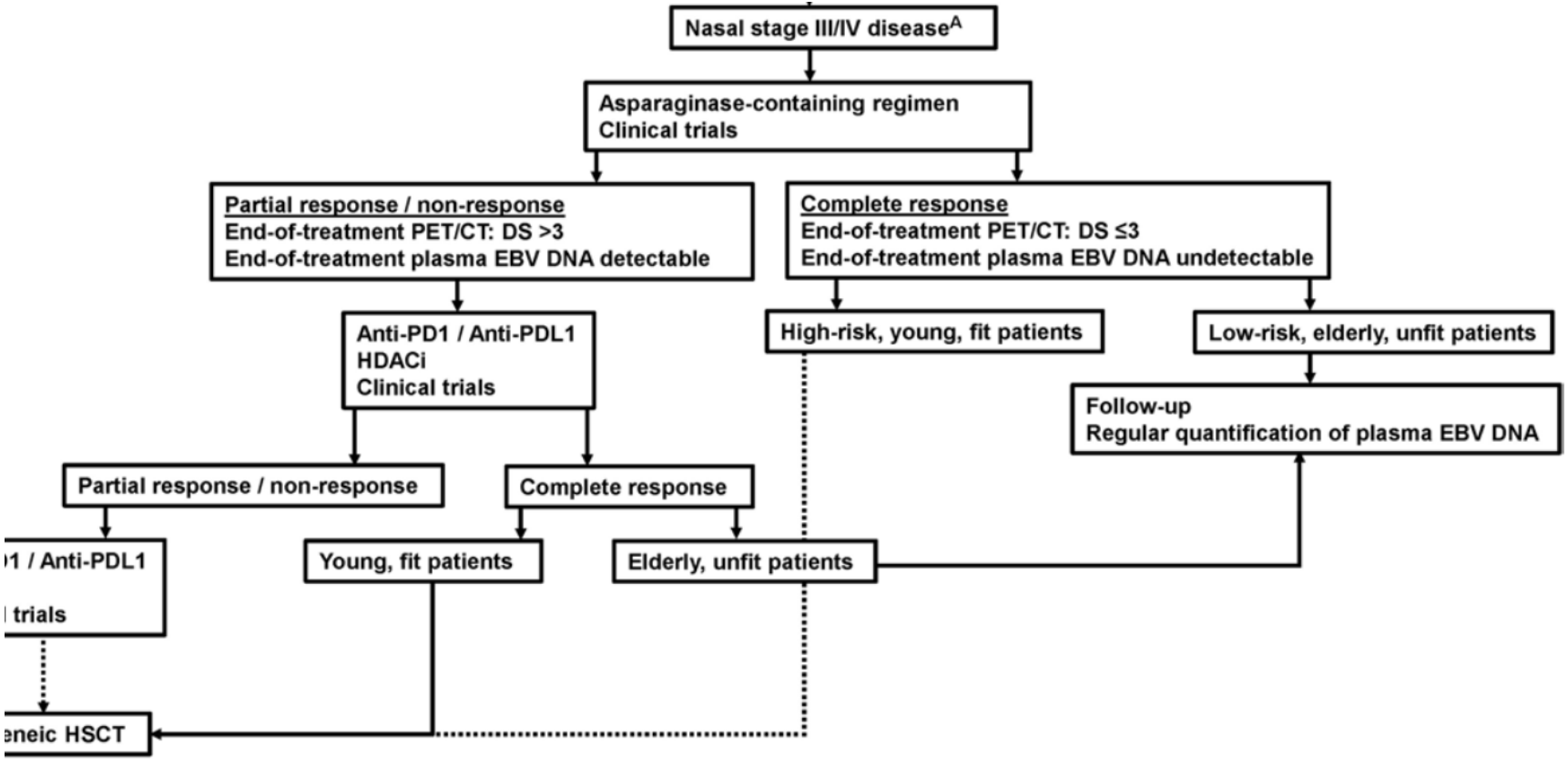
Regimens	Status	Stage	ORR	CR (%)	PFS	OS
VIDL + RT	Newly diagnosed	I/II	90%	87	5 year: 60%	5 year: 73%
LVP + RT	Newly diagnosed	I/II	89%	81	5 year: 64%	5 year: 64%
GELOX + RT	Newly diagnosed	I/II	96%	74	5 year: 74%	5 year: 85%
P-GEMOX [+ RT for stage I/II]	Newly diagnosed	I/II	94%	80	2 year: 77%	2 year: 83%
	Newly diagnosed	I/II	94%	64	3 year: 66%	3 year: 81%
	Relapsed/refractory		81%	52	3 year: 24%	3 year: 58%
DICE-L-asp	Newly diagnosed	I/II	100%	91	5 year: 82%	5 year: 89%
MESA	New diagnosed	I/II	92%	89	2 year: 89%	2 year: 92%
SMILE [+ RT for stage I/II]	Newly diagnosed	I/II	90%	69	Not reported	

VIDL – Etoposide/ ifos/ dexa/ L-aspa
LVP – L-Aspa/ Vincristine/ Prednisolone
GELOX – Gemcitabine/ L-Aspa/ Oxaliplatin
P-GEMOX – Pegaspargase/ Gemcitabine/ Oxaliplatin

DICE-L – dexa/ ifos/ cisplatin/ etoposide, L-aspa
MESA – MTX/ etoposide/ dexa/ pegaspargase
SMILE – Steroid (dexa)/ MTX/ Ifos/ L-aspa/ Etoposide

EBV-pos NK/T Cell Lymphoma

Tse. J Hematol Oncol 2022;15: 74



EBV-pos NK/T Cell Lymphoma

Tse. J Hematol Oncol 2022;15: 74

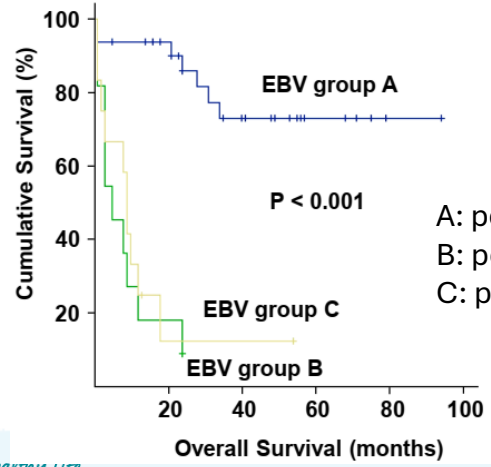
Regimens	Status	Stage	ORR	CR (%)	PFS	OS
SMILE [+ RT for stage I/II]	Newly diagnosed	I/II	90%	69	Not reported	
		III/IV	Not reported	54	4 year: 60%	5 year: 47%
	Relapsed/refractory		77%	66	4 year: 68%	5 year: 52%
DDGP	Newly diagnosed	III/IV	95%	71	1 year: 86%	1 year: 90%
AspaMetDex	Relapsed/refractory		78%	61	2 year: 40%	2 year: 40%
MEDA	Relapsed/refractory		77%	61	1 year: 62%	1 year: 69%

SMILE – Steroid (dexa)/ MTX/ Ifos/ L-aspa/ Etoposide
DDGP – dexa/ cisplatin/ gemcitabine/ pegaspargase
AspaMetDex – L-asparaginase/ MTX/ dexamethasone
MEDA – MTX/ etoposide/ dexa/ peg-asparaginase

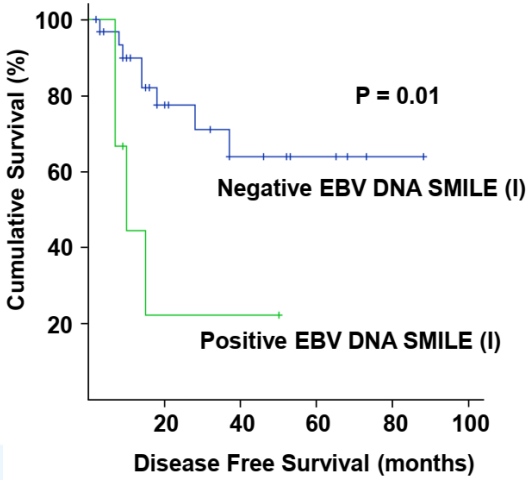
EBV-pos NK/T Cell Lymphoma

Khong. J Nucl Med 2014;55:911.
Kwong. Leukemia 2014;28:865.

Type of assessment	Cutoff	Sensitivity	Specificity	PPV	NPV	Accuracy	2-y survival	*P**
DS at midtreatment	low = 1–3	63%	94%	83%	83%	83%	81%	<0.001
	high = 4, 5						17%	
SUV_{max} at pretreatment	low < 7.55	50%	50%	33%	67%	50%	67%	0.965
	high > 7.55						65%	
SUV_{max} at midtreatment	low < 3	63%	94%	83%	83%	83%	81%	<0.001
	high > 3						17%	
DS at end-treatment	low = 1–3	67%	100%	100%	93%	94%	91%	<0.001
	high = 4, 5						0%	



A: persist undetectable;
B: persist detectable< Dx
C: persist detectable> Dx



Thank You

Tan Tock Seng Hospital • Khoo Teck Puat Hospital • Woodlands Hospital • Yishun Community Hospital • TTSH Integrated Care Hub

Institute of Mental Health • National Skin Centre • National Centre for Infectious Diseases • NHG Cancer Institute • NHG Eye Institute • NHG Heart Institute

Population Health • NHG Polyclinics • Diagnostics • Pharmacy • Community Care • NHG College • Centre for Healthcare Innovation