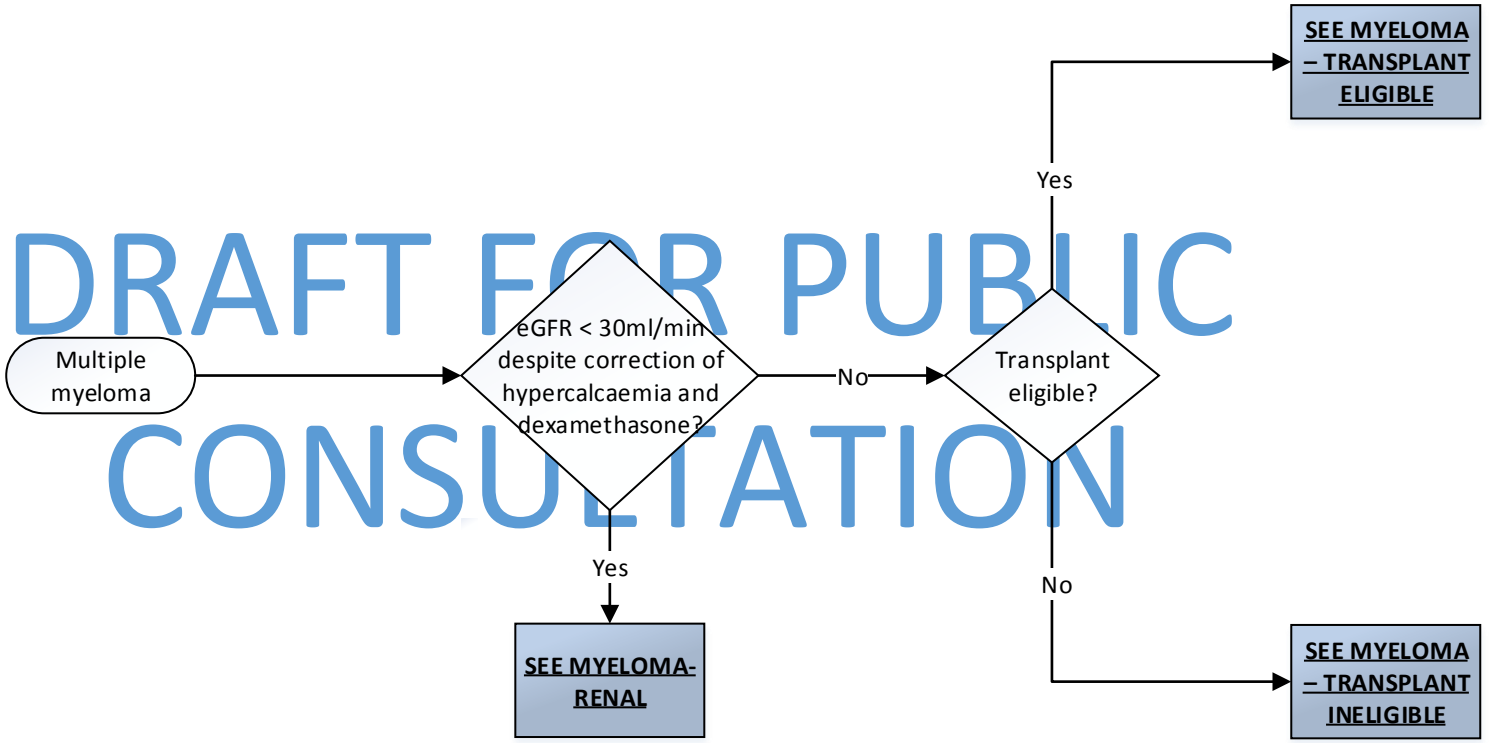
MULTIPLE MYELOMA



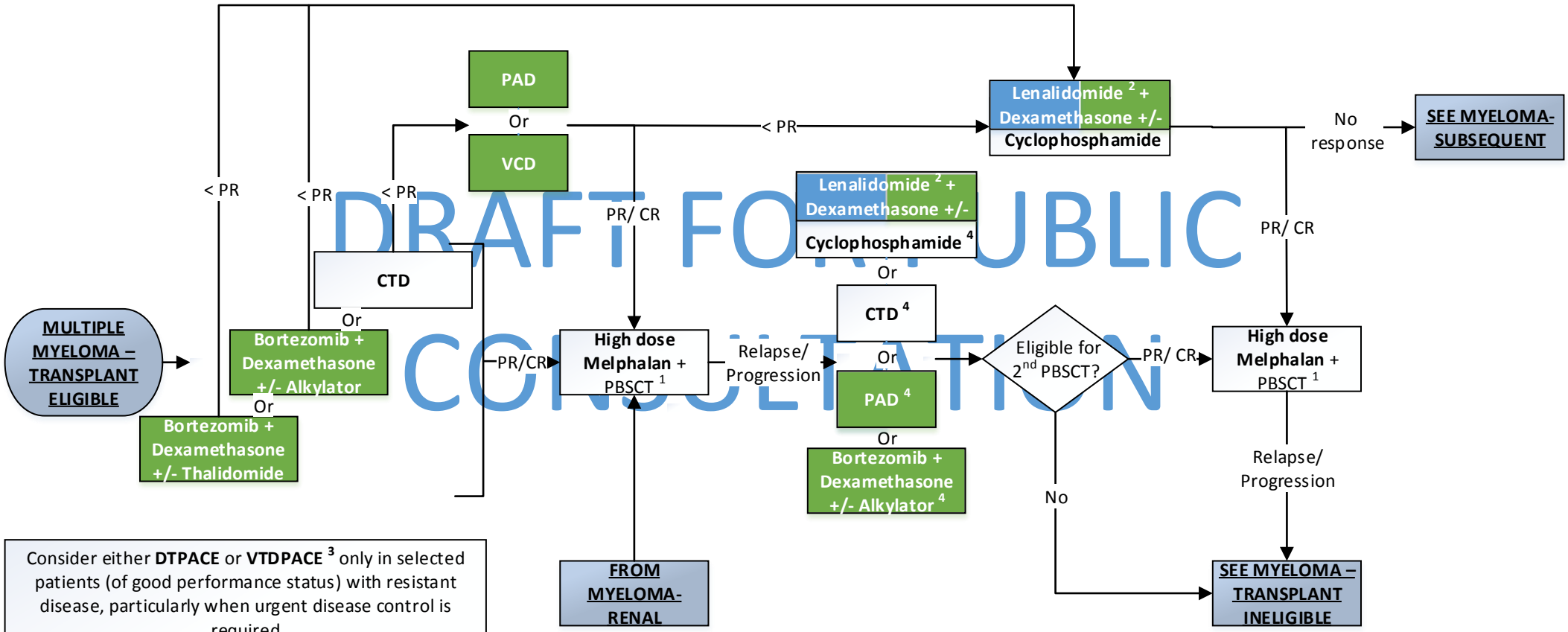
KEY

Click to move to relevant section

National Chemotherapy Algorithms

MULTIPLE MYELOMA
- TRANSPLANT ELIGIBLE

Wherever possible, eligible patients should be offered access to treatments as part of clinical trials.



Consider either **DTPACE** or **VTDPACE** [3] only in selected patients (of good performance status) with resistant disease, particularly when urgent disease control is required

KEY

- Funded via NHS England
- NICE approved
- Funded via the Cancer Drugs Fund
- Click to move to relevant section

REGIMEN DETAILS

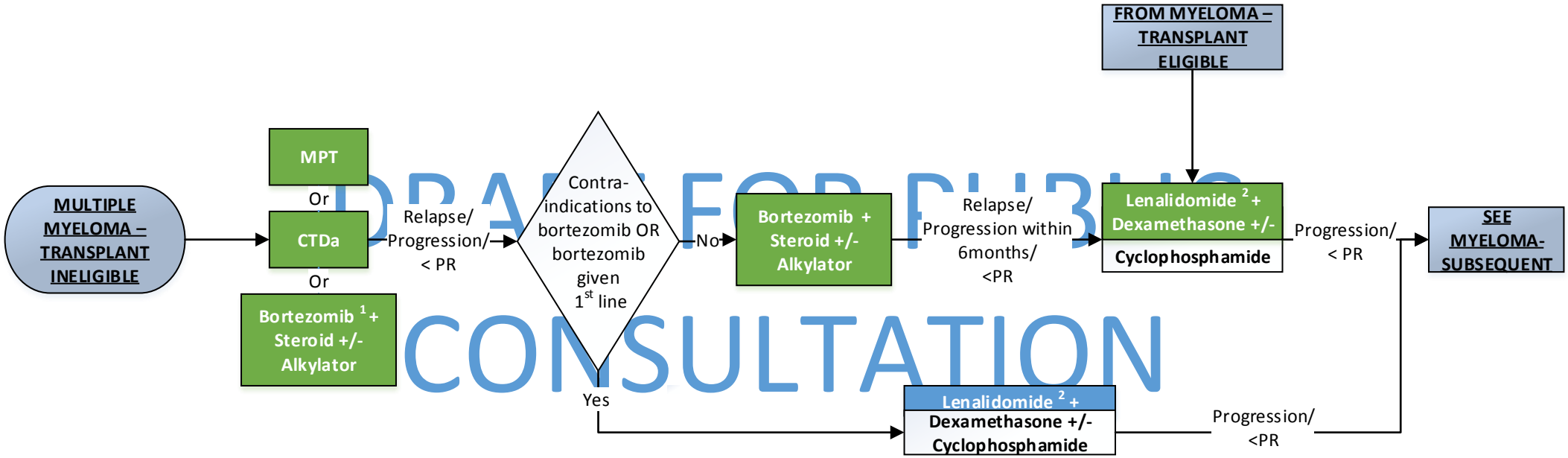
COMMENTS

1. Allogenic transplantation is a recognised therapy for a subgroup of transplant-eligible myeloma patients. Patients should be discussed with transplant centre and eligibility will be according to criteria defined by the BMT CRG. May include patients with <PR.
2. Funding stream for Lenalidomide varies depending on line of therapy
3. Do not use VTDPACE in patients who have failed to respond to bortezomib within the previous 6 months.
4. Choice of regimen should take account prior agents used, prior response, and duration of response. Bortezomib is not approved for use in patients who have received prior bortezomib

National Chemotherapy Algorithms

MULTIPLE MYELOMA
- TRANSPLANT INELIGIBLE

Wherever possible, eligible patients should be offered access to treatments as part of clinical trials.



Consider either **TIDE**, **DTPACE** or **VTDPACE** [4] only in selected patients (of good performance status) with resistant disease, particularly when urgent disease control is required

KEY

- Funded via NHS England
- NICE approved
- Funded via the Cancer Drugs Fund
- Click to move to relevant section

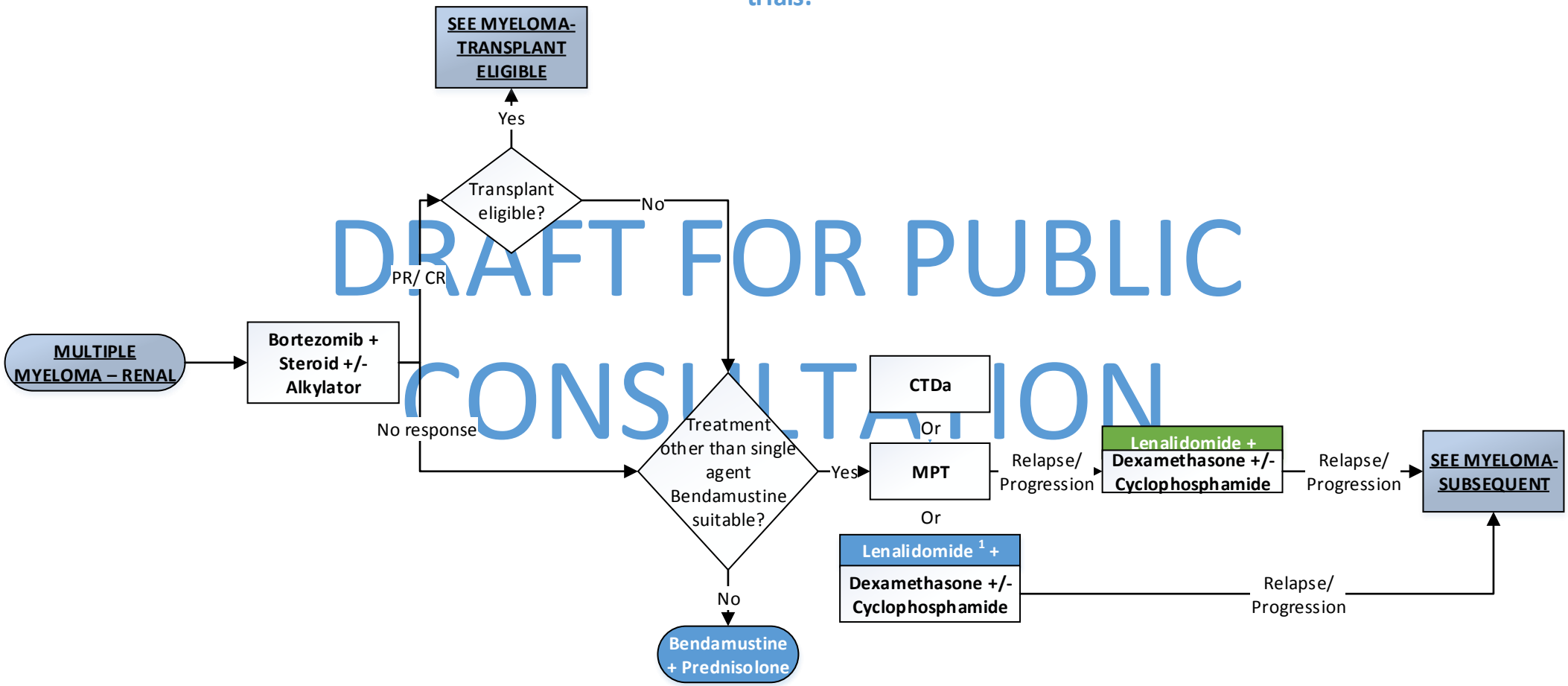
REGIMEN DETAILS

COMMENTS

1. NICE TA228 allows a bortezomib based regimen where thalidomide would normally be offered but cannot be taken because of side effects or other reasons..
2. Only if patient has not previously progressed on or shortly after receveiving lenalidomide, otherwise proceed to next treatment.
3. Do not use VTDPACE in patients who have failed to respond to bortezomib within the previous 6 months.

MULTIPLE MYELOMA
- RENAL

Wherever possible, eligible patients should be offered access to treatments as part of clinical trials.



KEY

- Funded via NHS England
- NICE approved
- Funded via the Cancer Drugs Fund
- Click to move to relevant section

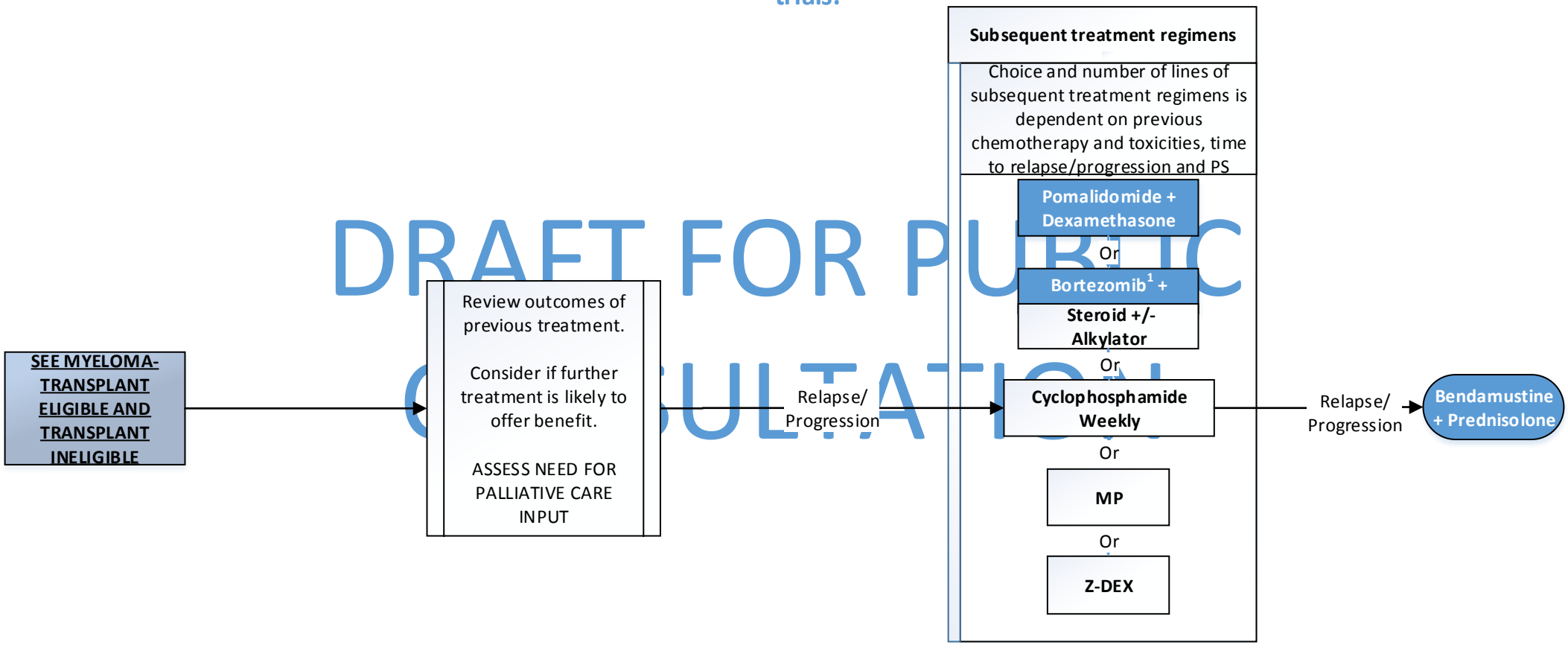
COMMENTS

1. Lenalidomide based regimen only if patient intolerant or Thalidomide contraindicated
N.B If no treatment options are suitable Bendamustine may be used as a single agent in its CDF approved indication of "relapsed disease where other treatments contraindicated or inappropriate"

National Chemotherapy Algorithms

MULTIPLE MYELOMA
- SUBSEQUENT TREATMENT

Wherever possible, eligible patients should be offered access to treatments as part of clinical trials.



KEY

- Funded via NHS England
- NICE approved
- Funded via the Cancer Drugs Fund
- Click to move to relevant section

REGIMEN DETAILS

COMMENTS

1. Only in patients who have received no prior bortezomib. Bortezomib rechallenge is not currently funded

N.B. If no treatment options are suitable Bendamustine may be used as a single agent in its CDF approved indication of "relapsed disease where other treatments contraindicated or inappropriate"

National Chemotherapy Algorithms

MULTIPLE MYELOMA

REGIMEN	DAYS	DRUGS	DOSE	ROUTE	CYCLE FREQUENCY	NUMBER OF CYCLES
Bendamustine	1 + 2	Bendamustine	60 - 100mg/m^2	IV	28 days	Up to 6 cycles
	1 to 4 incl	Prednisolone	60mg/m^2 once daily	PO		
Bortezomib	1, 4, 8 + 11	Bortezomib	1.3mg/m^2	IV/SC	21 days	Review after 2 and 4 cycles. Continue to a max. of 8 treatment cycles if partial response after 4 cycles
	1 +2, 4+5, 8+9 and 11 + 12	Dexamethasone	20mg once daily	PO		
Bortezomib + Thalidomide + Dexamethasone	1, 4, 8 + 11	Bortezomib	1.3mg/m^2	IV/SC	28 days	Continue to a max. of 6 treatment cycles if partial response after 4 cycles
	1 to 28 incl	Thalidomide	50 - 200mg once daily (50 mg daily on days 1-14, cycle 1 and if tolerated increased to 100 mg on days 15-28,. May be increased to 200 mg daily from cycle 2)	PO		
	1 to 4 and 8 to 11 incl	Dexamethasone	40mg once daily	PO		
CTD	1, 8 + 15	Cyclophosphamide	500mg stat	PO	21 days	Continue to plateau + 2 cycles
	1 to 21	Thalidomide	50 - 200mg once daily	PO		
	1 to 4 and 12 to 15	Dexamethasone	40mg once daily	PO		

National Chemotherapy Algorithms

MULTIPLE MYELOMA

REGIMEN	DAYS	DRUGS	DOSE	ROUTE	CYCLE FREQUENCY	NUMBER OF CYCLES
CTDa	1, 8, 15 + 22	Cyclophosphamide	500mg stat	PO	28 days	Continue to plateau + 2 cycles
	1 to 28	Thalidomide	50 - 200mg once daily	PO		
	1 to 4 and 15 to 18	Dexamethasone	20mg once daily	PO		
Cyclophosphamide Weekly	1, 8, 15 + 22	Cyclophosphamide	500mg stat	PO	28 days	Continue until disease relapse or progression
Dexamethasone	1 to 4	Dexamethasone	40mg once daily	PO	14 days until response, then every 28 days	Usually for 4-6 cycles
DT-PACE	1 to 4	Cisplatin	10mg/m^2/day	IV	Every 4 to 6 weeks	Usually for 2-4 cycles
		Dexamethasone	40mg once daily	PO		
		Etoposide	40mg/m^2/day	IV		
		Cyclophosphamide	400mg/m^2/day	IV		
		Doxorubicin	10mg/m^2/day	IV		
	Continuously	Thalidomide	Start 50 mg and increase up to 100 mg as tolerated	PO		

MULTIPLE MYELOMA

REGIMEN	DAYS	DRUGS	DOSE	ROUTE	CYCLE FREQUENCY	NUMBER OF CYCLES
MP	1 to 4	Melphalan	Up to 9mg/m^2 once daily	PO	28 days	Usually for 4-6 cycles
	1 to 4	Prednisolone	40mg once daily	PO		
MPT	1 to 7	Melphalan	Up to 7mg/m^2 once daily	PO	28 days	Continue to plateau + 2 cycles
	1 to 7	Prednisolone	40mg/m^2 once daily	PO		
	1 to 28	Thalidomide	Escalate to 200mg once daily	PO		
Lenalidomide	All Cycles: Days 1 to 21	Lenalidomide	25mg once daily (reduce in renal impairment)	PO	28 days	Continue until disease relapse or progression
	Cycles 1 to 4: Days 1-4, 9-12 + 17-20	Dexamethasone	40mg once daily	PO		
	Cycles 5 onwards: Days 1-4	Dexamethasone	40mg once daily	PO		
Lenalidomide + Cyclophosphamide	All Cycles: Days 1 to 21	Lenalidomide	25mg once daily (reduce in renal impairment)	PO	28 days	Continue until disease relapse or progression
	Cycles 1 to 4: Days 1-4, 9-12 + 17-20	Dexamethasone	40mg once daily	PO		
	Cycles 5 onwards: Days 1-4	Dexamethasone	40mg once daily	PO		
	All Cycles: Days 1 + 8	Cyclophosphamide	500mg stat	PO		

National Chemotherapy Algorithms

MULTIPLE MYELOMA

REGIMEN	DAYS	DRUGS	DOSE	ROUTE	CYCLE FREQUENCY	NUMBER OF CYCLES
PAD	1, 4, 8 + 11	Bortezomib	1.3mg/m^2	IV/SC	21 days	Continue to plateau + 2 cycles
	1 to 4	Doxorubicin	36mg/m^2 over 4 days	IV		
	1 to 4	Dexamethasone	40mg once daily	PO		
Pomalidomide	1 to 21	Pomalidomide	4mg	PO	28 days	Continue until disease relapse or progression
	1, 8, 15 + 22	Dexamethasone	40mg once daily	PO		
TIDE	1 to 21 incl	Thalidomide	100mg-200mg once daily	PO	28	Usually for 2 - 4 cycles
	1 to 4 incl	Idarubicin	10mg/m^2 once daily	PO		
	1 to 4 incl	Dexamethasone	20-40mg once daily	PO		
	1 to 4 incl	Etoposide	50mg/m^2 twice daily	PO		
VCD	1, 4, 8 + 11	Bortezomib	1.3mg/m^2	IV/SC	21 days	Review after 2 and 4 cycles. Continue to a max. of 8 treatment cycles if partial remission after 4 cycles
	1 +2, 4+5, 8+9 and 11 + 12	Dexamethasone	20mg once daily	PO		
	1, 8 + 15	Cyclophosphamide	500mg stat	PO		
VCD weekly	1, 8, 15 + 22	Bortezomib	1.3mg/m^2	IV/SC	35 days	Review after 2 and 4 cycles. Continue to a max. of 8 treatment cycles if partial remission after 4 cycles
	1 +2, 8 + 9, 15 + 16 and 22 + 23	Dexamethasone	20mg once daily	PO		
	1, 8 + 15	Cyclophosphamide	500mg stat	PO		

National Chemotherapy Algorithms

MULTIPLE MYELOMA

REGIMEN	DAYS	DRUGS	DOSE	ROUTE	CYCLE FREQUENCY	NUMBER OF CYCLES
VMP	Cycles 1 to 4: Day 1, 4, 8, 11, 22, 25, 29 and 32	Bortezomib	1.3mg/m^2	IV/SC	42 days	Review after 2 and 4 cycles. Continue to a max. of 8 treatment cycles if partial remission after 4 cycles
	Cycles 5 to 9: Days 1, 8, 29 and 32	Bortezomib	1.3mg/m^2	IV/SC		
	All cycles: Days 1 to 4	Melphalan	9mg/m^2	PO		
	All cycles: Days 1 to 4	Prednisolone	60mg/m^2	PO		
VTD-PACE	1, 4, 8 and 11	Bortezomib	1.0 mg/m^2	IV/SC	Every 4-6 weeks	Usually for 2-4 cycles
	Continuously	Thalidomide	Start 50 mg and increase up to 100 mg as tolerated	PO		
	1 to 4	Dexamethasone	40mg once daily	PO		
		Cisplatin	10mg/m^2/day	IV		
		Doxorubicin	10mg/m^2/day	IV		
		Cyclophosphamide	400mg/m^2/day	IV		
		Etoposide	40mg/m^2/day	IV		
Z-DEX	All cycles: Days 1 to 4	Idarubicin	10mg/m^2/day	PO	21 days	Usually for 4-6 cycles
	Cycle 1: Days 1 to 4, 8 to 11 and 15 to 18	Dexamethasone	40mg once daily	PO		
	Cycles 2 on: Days 1 to 4	Dexamethasone	40mg once daily	PO		

National Chemotherapy Algorithms

MULTIPLE MYELOMA

Title	Algorithms. Multiple Myeloma
Author(s)	David Thomson
Owner	Chemotherapy Clinical Reference Group

Version Control		
Version/Draft	**Date**	**Revision Summary**
ver0.1	19-Sep-13	
ver0.2	01-Nov-13	Various comments from Area Team Cancer Pharmacists (ATCP)
ver0.3	04-Dec-13	Various comments from A Penicket and C Polwart
ver0.4	29-Jan-14	Add bortezomib rechallenge to Myeloma-1. A Penicket comments
ver0.5	27-Aug-14	Stakeholder consultation comments incorporated.
ver0.6	22-Sep-14	Further changes incoprorated
ver0.7	15-Jan-15	Changes following Dec-14 CDF review incorporated

Contributors to current version		
Contributor	**Author/ Editor**	**Section/ Contribution**
A Penicket/C Polwart	D Thomson	Removal of bortezomib rechallenge as a CDF funded treatment option