

A Single Centre Review of Bortezomib Home-Administration in Myeloma Patients: Portsmouth Experience

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INTRODUCTION

The number of myeloma patients is increasing. Each year there are around 5800 new cases in the UK. These comprise 2% new cancer cases in 2017. Age standardised incidence has increased by 32% in the UK between 1993-1995 and 2015-2017.

Our unit had 75 newly diagnosed patients during 2018/19 compared to 51 in 2014/15. Many receive Bortezomib, which forms the backbone of 4 NICE approved regimens. Bortezomib is given once or twice-weekly as a subcutaneous injection. This places considerable burden on Haematology Day Unit (HODU) resources and adversely affects patient experience with frequent hospital visits.

Allocated slots for Bortezomib are normally 30 minutes on HODU. In our unit waiting times for patients can be significantly longer with staffing and capacity issues.

OUR PROTOCOL

Different centres have introduced varying methods of reducing the burden on HODU resources, for example via using external providers to administer Bortezomib at home or mobile chemotherapy units.

In 2017 our centre instigated a Homecare protocol to teach patients to self-administer Bortezomib. Suitable patients underwent training by designated ward, HODU nurses or Clinical Nurse Specialists (CNS).

Due to drug stability, a two week supply can be dispensed by pharmacy.

GOALS

- Improve patient quality of life by reducing hospital attendances
- Increase HODU capacity.

AIMS

Since its introduction in 2017, the majority of patients have been treated on the Homecare protocol (24 in 2018, 47 in 2019).

To assess the effectiveness of this programme, we conducted a retrospective review of patients receiving Bortezomib between January and October 2019 to establish the:

- 1) Proportion able to commence the Homecare protocol
- 2) Proportion successful in completing treatment on the Homecare protocol
- 3) Amount of additional CNS time required to support the Homecare protocol
- 4) Number of associated adverse incidents

METHODS

Data was obtained from pharmacy records and CNS log of patient visits and phone-calls.

RESULTS

Study Population

Of 61 patients treated with Bortezomib, 52 were included in this study.

Reasons for exclusions:

- 2 inpatient treatment only
- 3 transferred elsewhere
- 3 early cessation (2 for toxicity, 1 for rapid progression).

Fig 1: Baseline characteristics

Baseline Characteristics	
Age	Average: 74 yrs (range 51-90yrs)
Treatment Line:	
1 st	29/52 (55.7%)
2 nd	19/52 (36.5%)
3 rd line onwards	4/52 (7.6%)
Treatment Duration	Average 5.3 cycles (range 2-9)

1) Administration:

- The majority of patients were started on the Homecare protocol (45).
- 4 were unable to self-administer.
- 4 were given Bortezomib as part of a DVD protocol, of whom 3 later switched to Homecare.
- 25 patients self-administered, 17 had a relative administer

2) Completion

- 43 patients completed treatment on the Homecare protocol. 2 patients reverted to administration via HODU/CNS due to difficulty managing self-administration.

3) CNS Time

- 38 patients were trained for Homecare by CNS.
- 2 were assessed as unsuitable for Homecare.
- The remaining patients were trained by HODU/ward nurses or did not require training having received Bortezomib previously.
- Average initial consultation was 43 minutes (unknown consultation in 6 patients as not documented or trained by ward/HODU).

Fig 2: Initial Consultation Time

Initial consultation time (min)	% patients
<30	32
31-45	42
46-60	21
>60	5

CONCLUSIONS:

The majority of patients can safely proceed with the Homecare protocol, significantly increasing HODU capacity. Sufficient CNS resources are required for training and support.

This review was undertaken in the pre-Covid era. Minimising hospital visits in immunosuppressed haematology patients is of paramount importance in the current pandemic. The Homecare protocol reduces hospital visits by at least 50% (fortnightly drug collection requires collection via drive-through pick up points). Other centres may be able to further reduce exposure by using home delivery/courier services to supply Bortezomib.

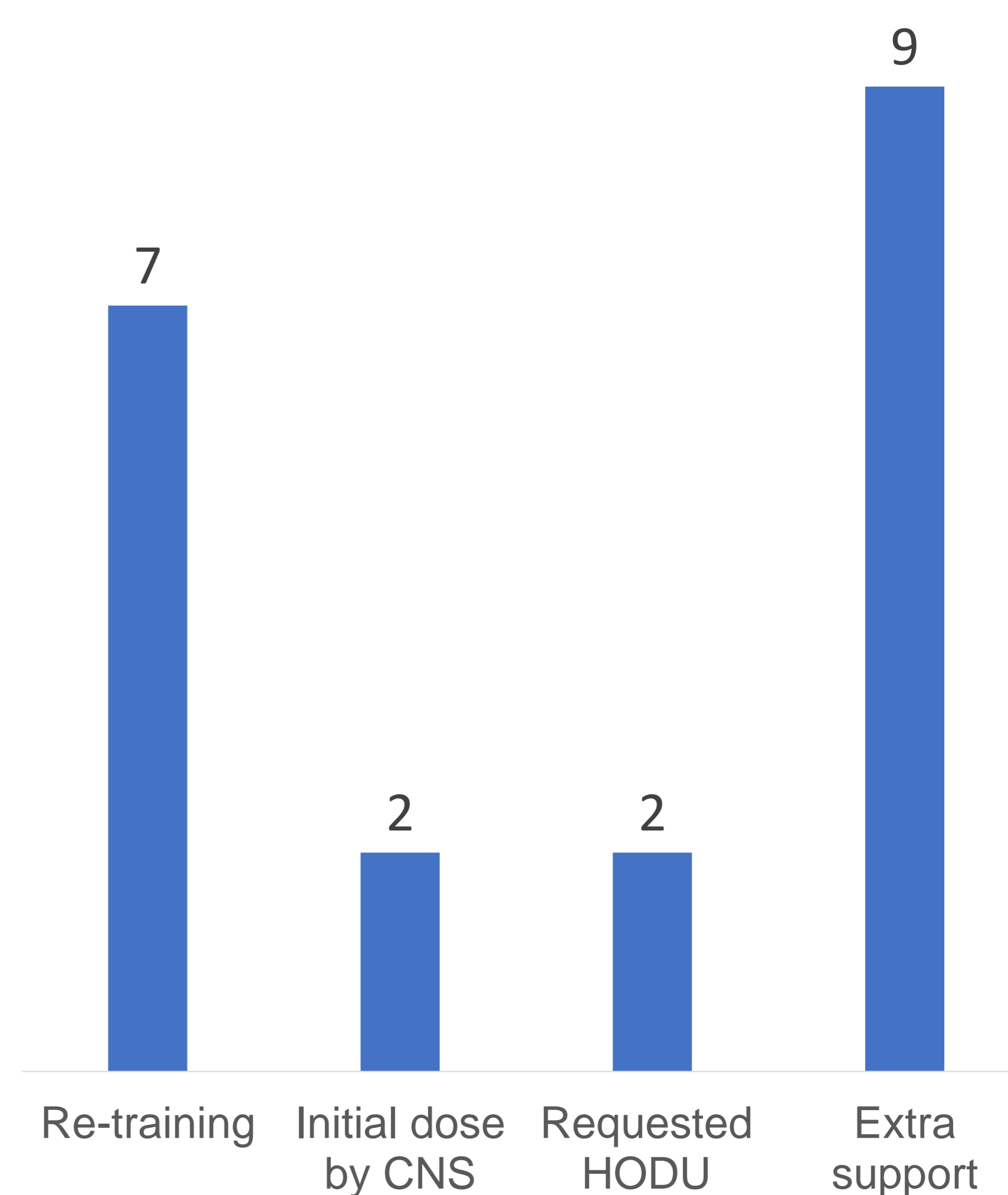
Our protocol allows Bortezomib to be administered at home, reducing unnecessary hospital attendances and is likely to improve patient experience and satisfaction. We had planned to explore this further with a patient experience survey prior to the pandemic.

RESULTS

3) Additional CNS Administration time

- Mean time for additional CNS input was 55 minutes (range 10-190 minutes).
- 20 patients had additional CNS consultations

Fig 3: Additional CNS Input



Queries requiring extra support included:

- a) Injection site queries
- b) Further reassurance during administration
- c) Syringe query
- d) Administrative query
- e) Spillages

4) Adverse Events

6 patients sustained adverse events

- 3 reported spillages (with no harm caused)
- 3 had injection site incidents (rash, pain)

Fig 4: Reported Adverse Events

