
Impact of Covid-19 on incidence, survival and mortality of multiple myeloma in Northern Ireland

(A comparison between April-December of 2020 and 2018-2019)

Further information

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The incidence, prevalence and survival statistics in this publication are designated as official statistics signifying that they comply with the Code of Practice for Official Statistics.



INCIDENCE

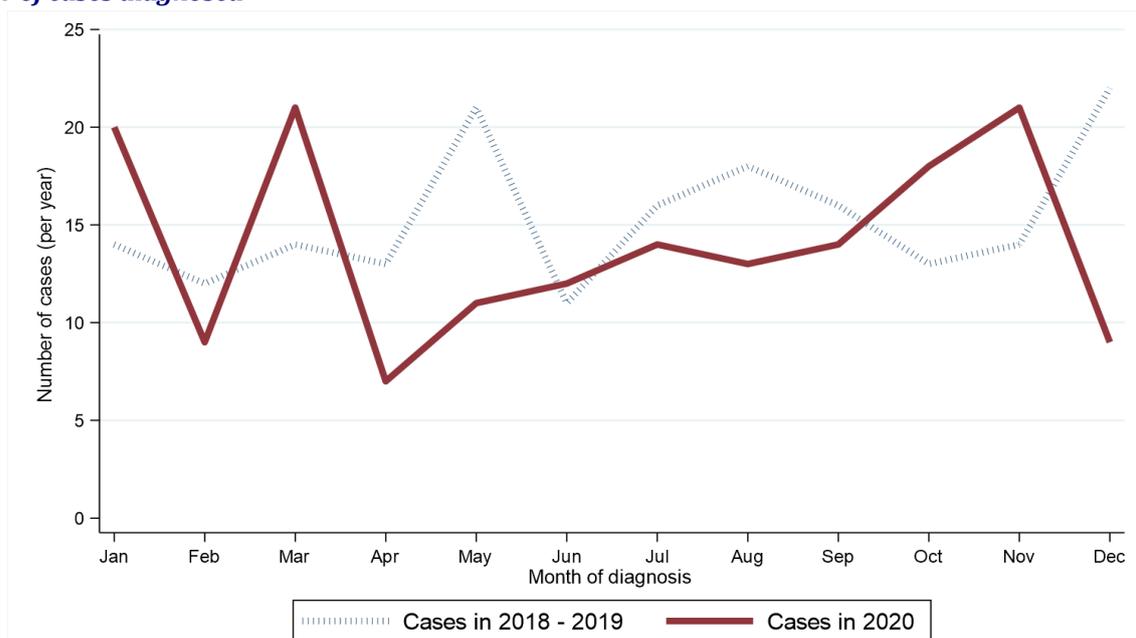
During the April-December period when Covid-19 was present the number of cases of multiple myeloma diagnosed decreased by 15.6% (22 patients) from 141 per year in 2018 - 2019 to 119 in 2020.

Table 1: Number of multiple myeloma cases diagnosed in 2018-2020 by month and year of diagnosis

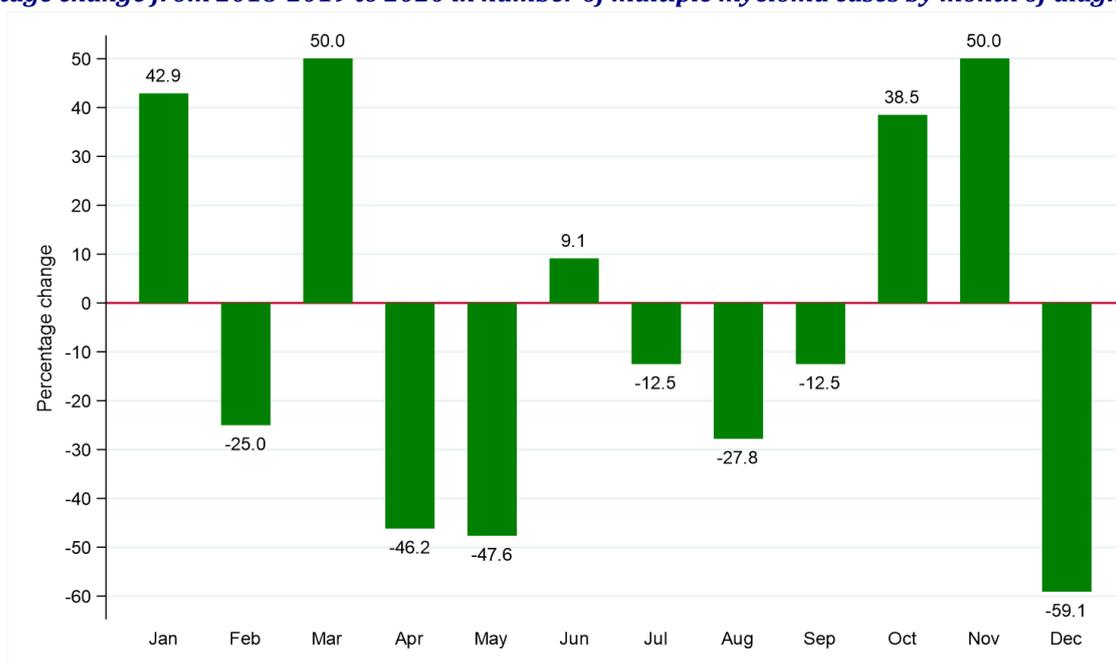
Period of diagnosis	Annual total	Month diagnosed											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2018-2019*	180	14	12	14	13	21	11	16	18	16	13	14	22
2020	169	20	9	21	7	11	12	14	13	14	18	21	9

* Average cases per year rounded to the nearest integer. Row sums may thus differ slightly from the total.

Figure 1: Number of multiple myeloma cases diagnosed in 2018-2020 by month and year of diagnosis
(a) Number of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of multiple myeloma cases by month of diagnosis



GENDER

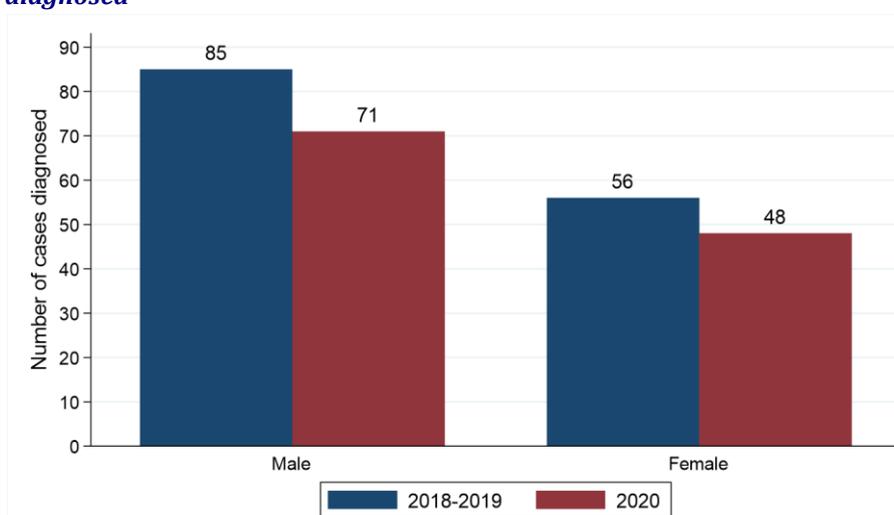
Excluding the first quarter of each year among males the number of cases of multiple myeloma diagnosed decreased by 16.5% from 85 per year in 2018 - 2019 to 71 in 2020. Between the same two time periods the number of cases among females decreased by 14.3% from 56 per year to 48. The change in case distribution by gender between 2018 - 2019 and 2020 was not statistically significant.

Table 2: Number and proportion of multiple myeloma cases diagnosed in April-December of 2018-2020 by gender and period of diagnosis

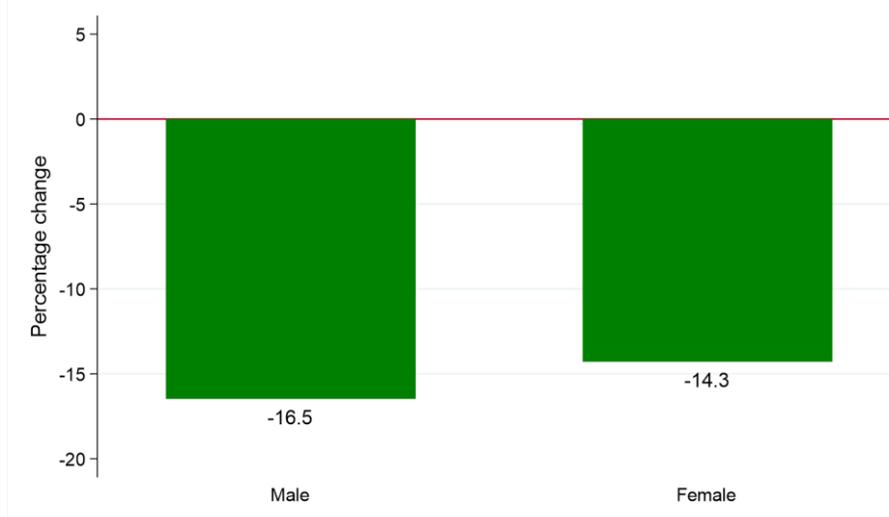
Gender	Period of diagnosis (Apr-Dec)		Percentage change
	2018-2019*	2020	
Male	85 (60.3%)	71 (59.7%)	-16.5% (14 patients)
Female	56 (39.7%)	48 (40.3%)	-14.3% (8 patients)
All persons	141	119	-15.6% (22 patients)

* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Figure 2: Multiple myeloma cases diagnosed in April-December of 2018-2020 by gender and period of diagnosis
(a) Number of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of multiple myeloma cases by gender



AGE

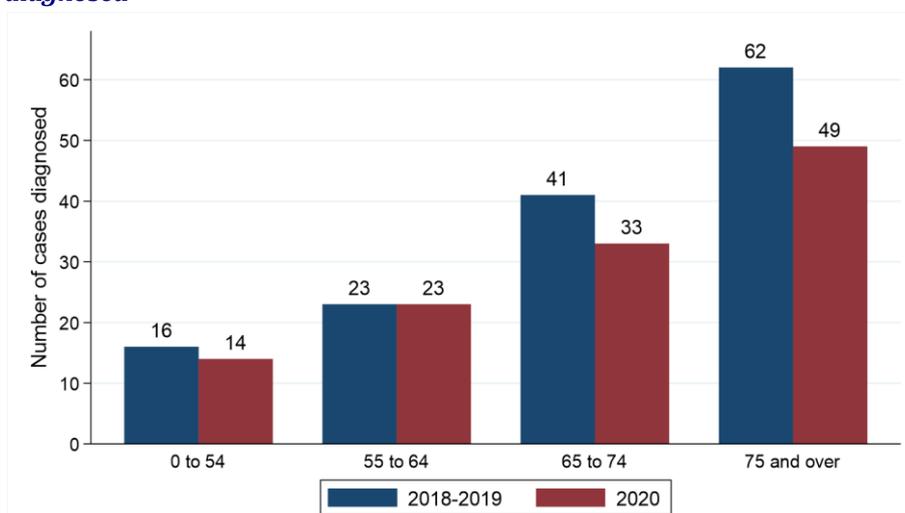
Excluding the first quarter of each year among people aged 75 and over the number of cases of multiple myeloma diagnosed decreased by 21.0% from 62 per year in 2018 - 2019 to 49 in 2020. Among people aged 55 to 64 there was no change in the number of cases per year between 2018 - 2019 and 2020, with an average of 23 cases each year. The change in case distribution by age between 2018 - 2019 and 2020 was not statistically significant.

Table 3: Number and proportion of multiple myeloma cases diagnosed in April-December of 2018-2020 by age and period of diagnosis

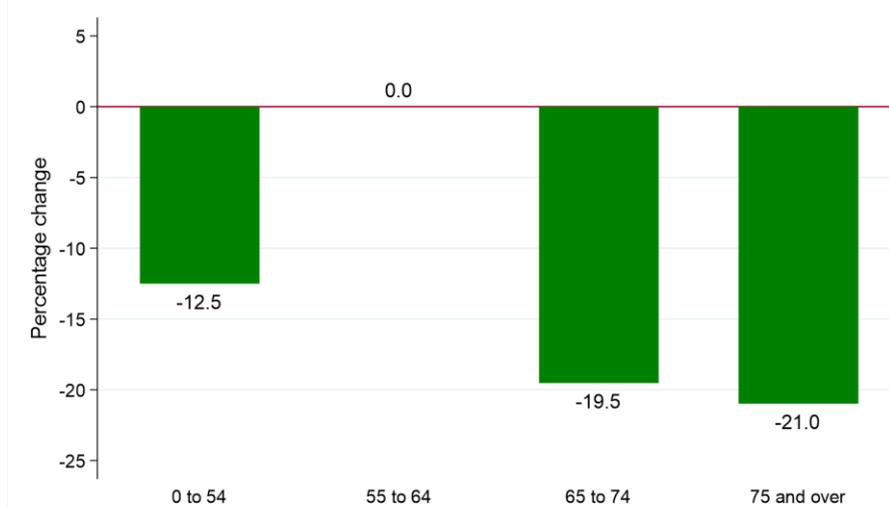
Age group	Period of diagnosis (Apr-Dec)		Percentage change
	2018-2019*	2020	
0 to 54	16 (11.3%)	14 (11.8%)	-12.5% (2 patients)
55 to 64	23 (16.3%)	23 (19.3%)	0.0% (0 patients)
65 to 74	41 (29.1%)	33 (27.7%)	-19.5% (8 patients)
75 and over	62 (44.0%)	49 (41.2%)	-21.0% (13 patients)
All ages	141	119	-15.6% (22 patients)

* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Figure 3: Multiple myeloma cases diagnosed in April-December of 2018-2020 by age and period of diagnosis
(a) Number of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of multiple myeloma cases by age at diagnosis



HEALTH AND SOCIAL CARE TRUST

Excluding the first quarter of each year among residents of Belfast HSCT the number of cases of multiple myeloma diagnosed decreased by 50.0% from 30 per year in 2018 - 2019 to 15 in 2020. Between the same two time periods the number of cases among residents of Southern HSCT increased by 8.6% from 35 per year to 38. The change in case distribution by HSCT between 2018 - 2019 and 2020 was not statistically significant.

Table 4: Number and proportion of multiple myeloma cases diagnosed in April-December of 2018-2020 by Health and Social Care Trust and period of diagnosis

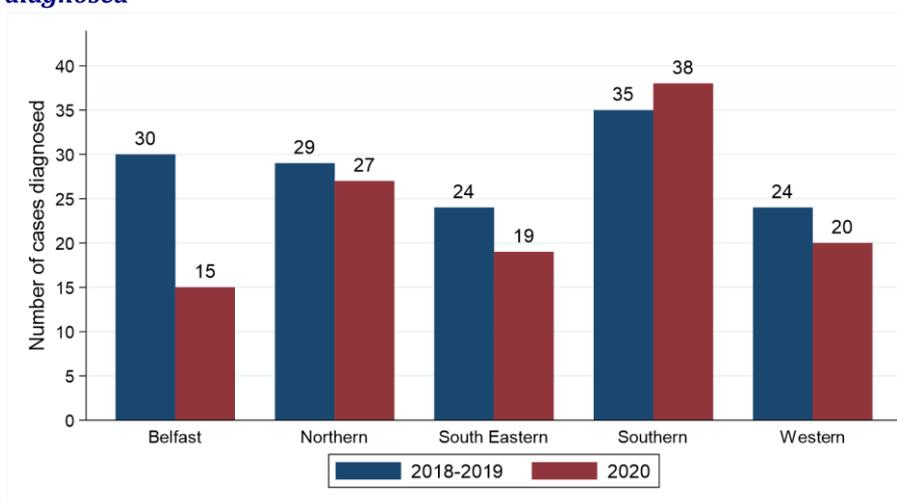
Health and Social Care Trust	Period of diagnosis (Apr-Dec)		Percentage change
	2018-2019*	2020	
Belfast HSCT	30 (21.3%)	15 (12.6%)	-50.0% (15 patients)
Northern HSCT	29 (20.6%)	27 (22.7%)	-6.9% (2 patients)
South Eastern HSCT	24 (17.0%)	19 (16.0%)	-20.8% (5 patients)
Southern HSCT	35 (24.8%)	38 (31.9%)	+8.6% (3 patients)
Western HSCT	24 (17.0%)	20 (16.8%)	-16.7% (4 patients)
Northern Ireland	141	119	-15.6% (22 patients)

* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

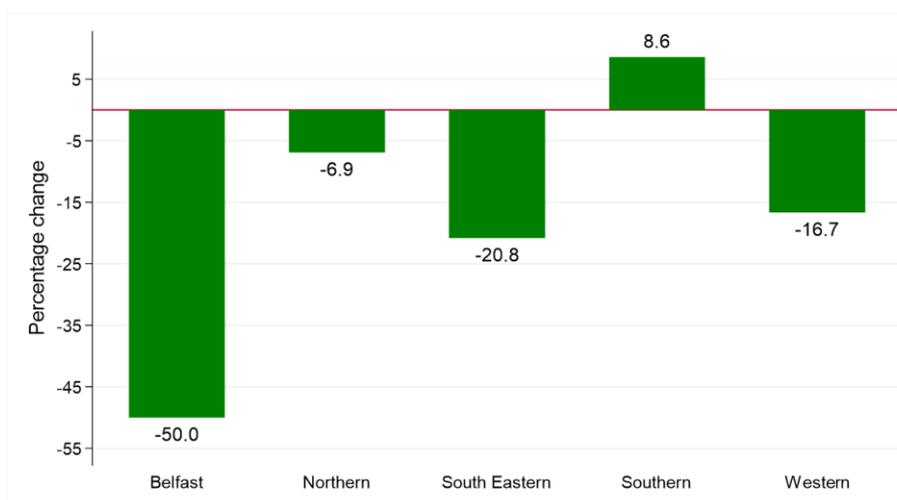
Note: Cases with unknown Health and Social Care Trust are included in totals

Figure 4: Multiple myeloma cases diagnosed in April-December of 2018-2020 by Health and Social Care Trust and period of diagnosis

(a) Number of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of multiple myeloma cases by Health and Social Care Trust



DEPRIVATION

Excluding the first quarter of each year among residents of the most deprived areas the number of cases of multiple myeloma diagnosed decreased by 19.2% from 26 per year in 2018 - 2019 to 21 in 2020. Between the same two time periods the number of cases among residents of the least deprived areas decreased by 53.3% from 30 per year to 14. The change in case distribution by deprivation quintile between 2018 - 2019 and 2020 was not statistically significant.

Table 5: Number and proportion of multiple myeloma cases diagnosed in April-December of 2018-2020 by deprivation quintile and period of diagnosis

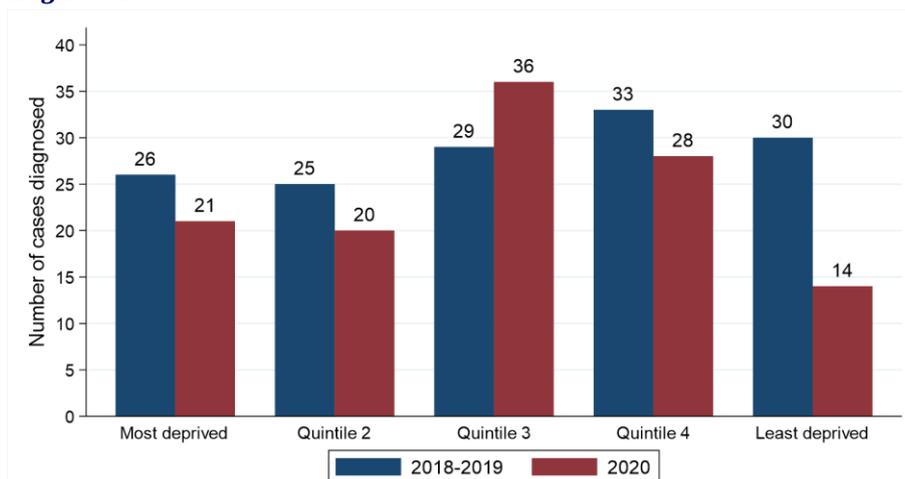
Deprivation quintile	Period of diagnosis (Apr-Dec)		Percentage change
	2018-2019*	2020	
Most deprived	26 (18.4%)	21 (17.6%)	-19.2% (5 patients)
Quintile 2	25 (17.7%)	20 (16.8%)	-20.0% (5 patients)
Quintile 3	29 (20.6%)	36 (30.3%)	+24.1% (7 patients)
Quintile 4	33 (23.4%)	28 (23.5%)	-15.2% (5 patients)
Least deprived	30 (21.3%)	14 (11.8%)	-53.3% (16 patients)
Northern Ireland	141	119	-15.6% (22 patients)

* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

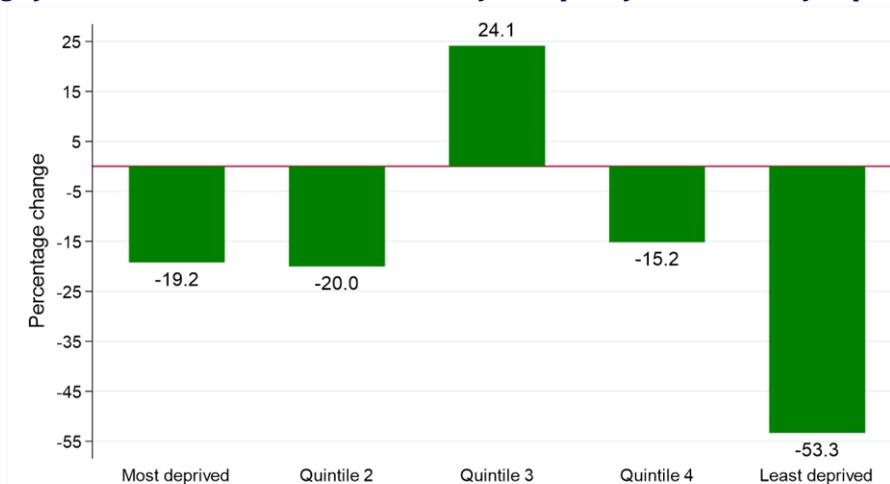
Note: Cases with unknown deprivation quintile are included in totals

Figure 5: Multiple myeloma cases diagnosed in April-December of 2018-2020 by deprivation quintile and period of diagnosis

(a) Number of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of multiple myeloma cases by deprivation quintile



METHOD OF HOSPITAL ADMISSION

Excluding the first quarter of each year the number of cases of multiple myeloma where the patient had an emergency admission recorded as the most recent hospital admission type up to 30 days prior to diagnosis decreased by 3.0% from 33 per year in 2018 - 2019 to 32 in 2020. The change in case distribution by hospital admission type between 2018 - 2019 and 2020 was not statistically significant.

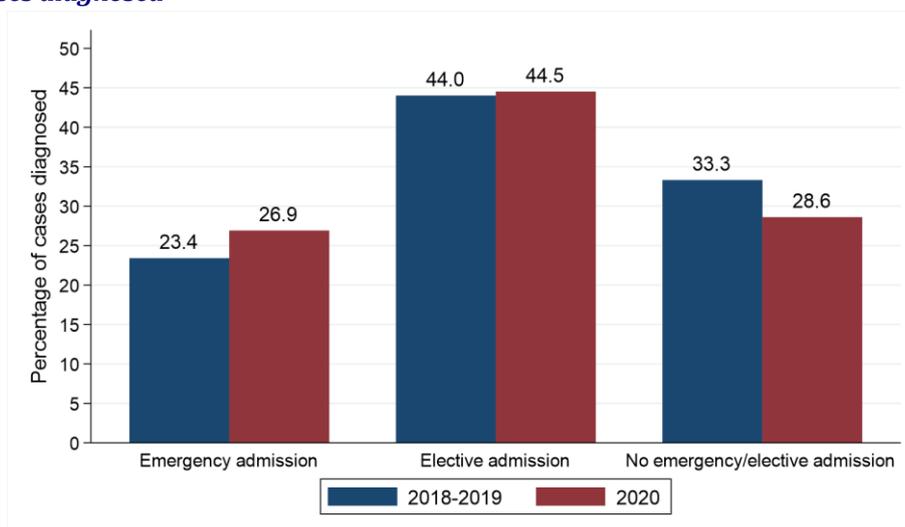
Table 6: Number and proportion of multiple myeloma cases diagnosed in April-December of 2018-2020 by method of admission to hospital and period of diagnosis

Method of admission to hospital	Period of diagnosis (Apr-Dec)		Percentage change
	2018-2019*	2020	
Emergency admission	33 (23.4%)	32 (26.9%)	-3.0% (1 patient)
Elective admission	62 (44.0%)	53 (44.5%)	-14.5% (9 patients)
No emergency/elective admission recorded	47 (33.3%)	34 (28.6%)	-27.7% (13 patients)
All persons	141	119	-15.6% (22 patients)

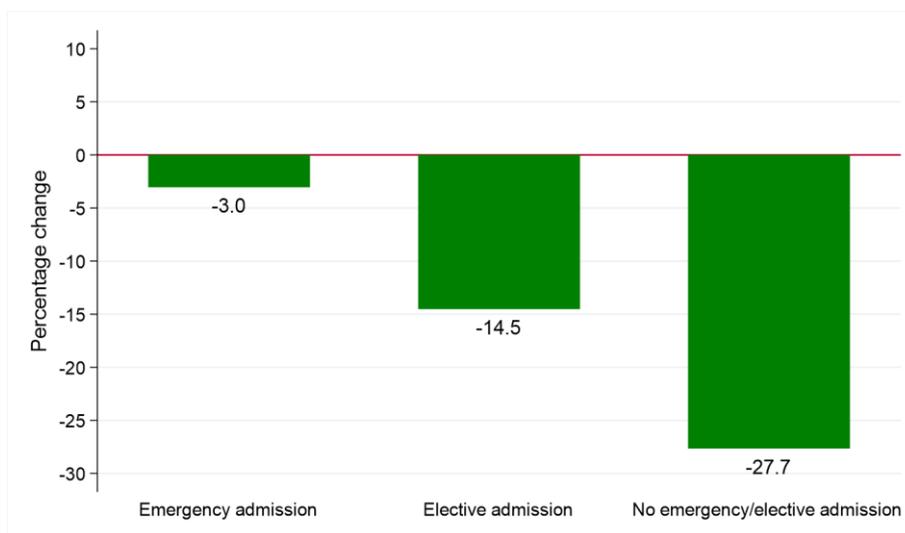
* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Figure 6: Multiple myeloma cases diagnosed in April-December of 2018-2020 by method of admission to hospital and period of diagnosis

(a) Proportion of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of multiple myeloma cases by method of admission to hospital



SURVIVAL

Changes in survival are evaluated using two measures. Observed survival examines the time between diagnosis and death from any cause. It thus represents what cancer patients experience, however, due to the inclusion of non-cancer deaths (e.g. heart disease), it may not reflect how changes in cancer care impact survival from cancer. Thus changes in age-standardised net survival are also examined. This measure provides an estimate of patient survival which has been adjusted to take account of deaths unrelated to cancer. It also assumes a standard age distribution thereby removing the impact of changes in the age distribution of cancer patients on changes in survival over time. While this measure is hypothetical, as it assumes patients can only die from cancer related factors, it is a better indicator of the impact of changes in cancer care on patient survival.

OBSERVED SURVIVAL

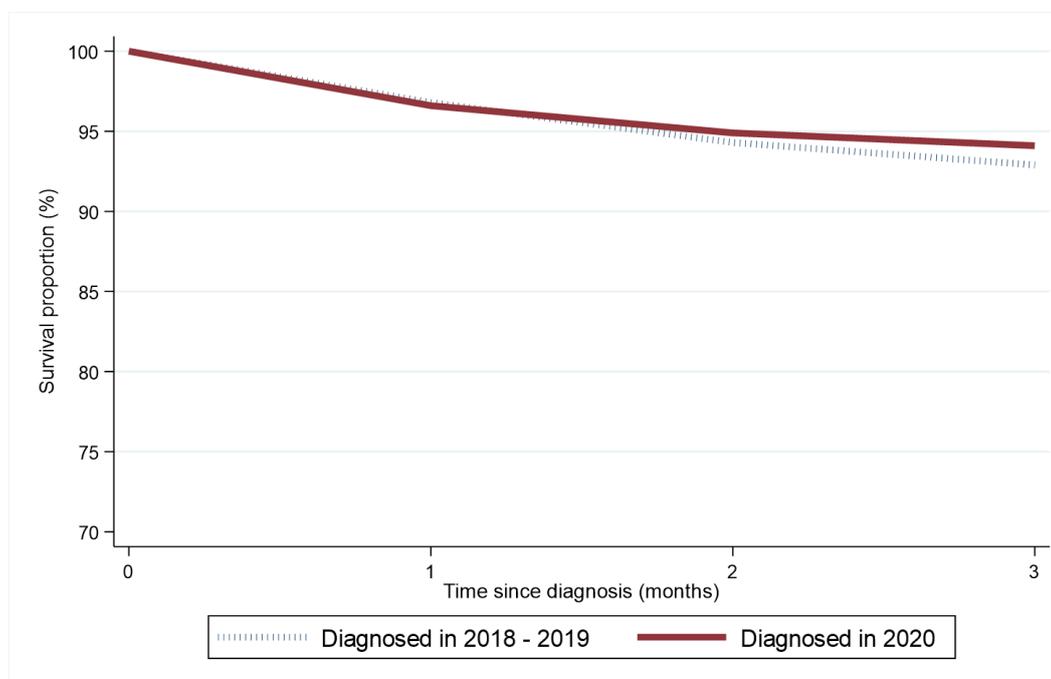
Survival among multiple myeloma patients one month after diagnosis decreased from 96.8% among those diagnosed in April-December of 2018 - 2019 to 96.6% among those diagnosed in April-December of 2020. This change was not statistically significant. Between the same two diagnosis periods, three-month survival increased from 92.9% to 94.1%. This change was not statistically significant.

Table 7: Observed survival for patients with multiple myeloma diagnosed in April-December of 2018-2020 by period of diagnosis

Survival time	Period of diagnosis (Apr-Dec)	
	2018-2019	2020
1 month	96.8% (93.9% - 98.3%)	96.6% (91.2% - 98.7%)
2 months	94.3% (90.9% - 96.5%)	94.9% (89.0% - 97.7%)
3 months	92.9% (89.2% - 95.3%)	94.1% (88.0% - 97.1%)

No statistically significant reductions

Figure 7: Observed survival for patients with multiple myeloma diagnosed in April-December of 2018-2020 by period of diagnosis



DEATHS FROM COVID-19

During 2020 there were a total of 15 deaths from Covid-19 among multiple myeloma patients diagnosed at any point since 1993.

NET SURVIVAL

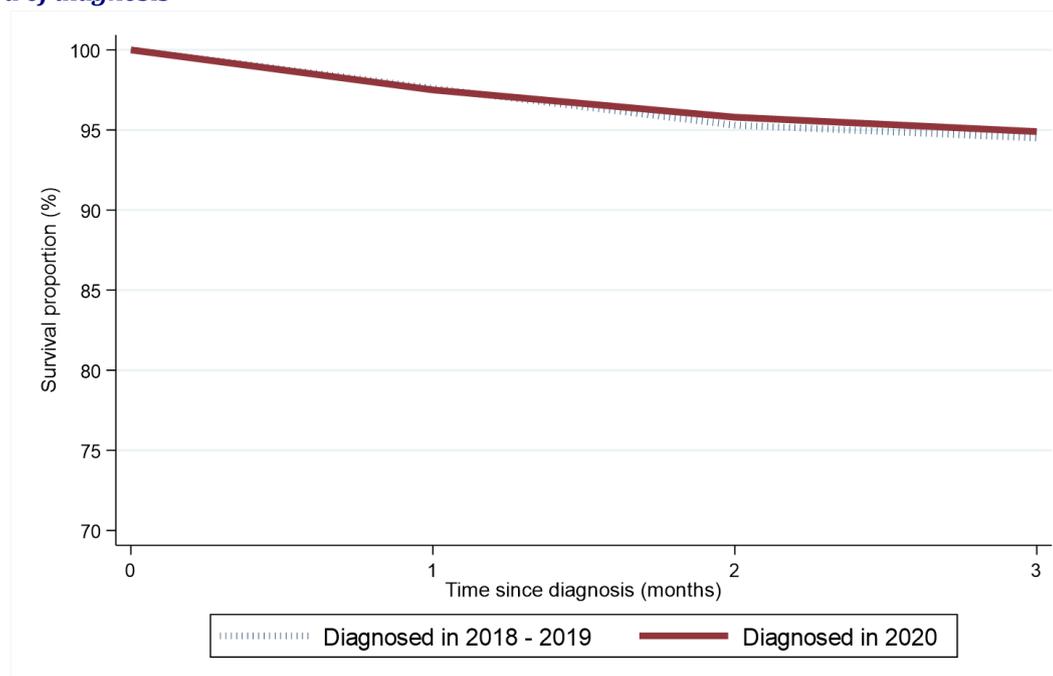
Age-standardised net survival (which takes account of deaths from other causes such as Covid-19) among multiple myeloma patients one month after diagnosis decreased from 97.6% among those diagnosed in April-December of 2018 - 2019 to 97.5% among those diagnosed in April-December of 2020. This change was not statistically significant. Between the same two time periods, three-month age-standardised net survival increased from 94.5% to 94.9%. This change was not statistically significant.

Table 8: Age-standardised net survival for patients with multiple myeloma diagnosed in April-December of 2018-2020 by period of diagnosis

Survival time	Period of diagnosis (Apr-Dec)	
	2018-2019	2020
1 month	97.6% (95.9% - 99.3%)	97.5% (94.9% - 100.0%)
2 months	95.3% (92.9% - 97.8%)	95.8% (92.3% - 99.4%)
3 months	94.5% (91.9% - 97.1%)	94.9% (91.1% - 98.9%)

No statistically significant reductions

Figure 8: Age-standardised net survival for patients with multiple myeloma diagnosed in April-December of 2018-2020 by period of diagnosis



CANCER MORTALITY

During the April-December period when Covid-19 was present the number of deaths from multiple myeloma increased by 1.6% from 61 per year in 2018 - 2019 to 62 in 2020.

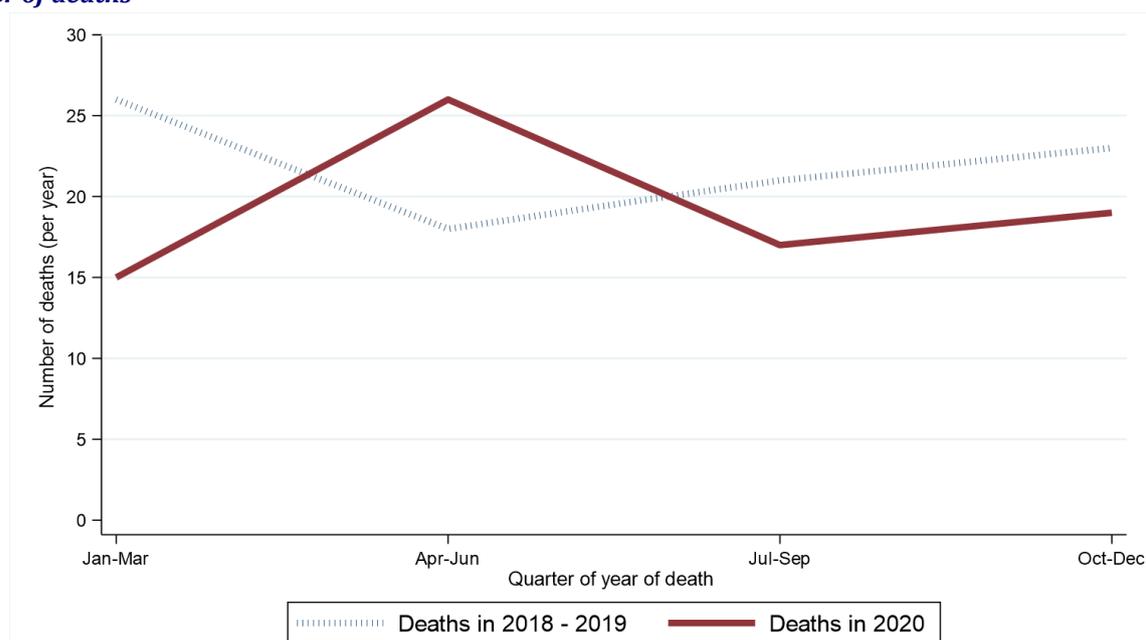
Table 9: Number of multiple myeloma deaths in 2018-2020 by quarter and year of death

Period of death	Annual total	Quarter of year death occurred			
		Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec
2018-2019*	87	26	18	21	23
2020	77	15	26	17	19

* Average deaths per year rounded to the nearest integer. Row sums may thus differ slightly from the total.

Figure 9: Number of multiple myeloma deaths in 2018-2020 by quarter and year of death

(a) Number of deaths



(b) Percentage change from 2018-2019 to 2020 in number of multiple myeloma deaths by quarter of year of death

