PUBLISHED ABSTRACT

Insurance Status and Healthcare Disparity in Patients with Hodgkin's Lymphoma Before and After the Affordable Care Act: A SEER Database Study

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Background

Disparities in cancer-related treatment and survival by insurance type have been well-established. Affordable Care Act aims to increase healthcare coverage to vulnerable populations, especially those young patients with cancer. Our goal is to elucidate possible impact of ACA on Hodgkin's Lymphoma (HL).

Methods

HL patients aged 15–64 years were retrieved from the SEER 18 Program. Based on year of diagnosis, data were stratified according to passage of ACA (2007–2010 vs 2011–2014). Insurance status at diagnosis was classified into private insurance, Medicaid and uninsured. Disease stage, therapy modality and survival time were collected.

Results

12,702 patients were included. Medicaid and uninsured patients were more likely to be diagnosed at later stage regardless of year of diagnosis (**Table 1**). Compared to private insurance, uninsured status was less likely to receive either

Table 1: The association between stage, treatment and mortality with insurance type by year of diagnosis. Adjusted for age, gender, race, histology, B symptoms, education, income, region and marital status. Single treatment was defined as chemotherapy or radiotherapy.

Insurance	2007–2010 (n = 6494)			2011–2014 (n = 6208)		
	Stage III–IV vs Stage I–II					
	OR 95% CI			**OR 95% CI**		
Insured	1.00			1.00		
Medicaid	1.38 (1.18–1.63)			1.39 (1.19–1.62)		
Uninsured	1.51 (1.21–1.87)			1.32 (1.06–1.65)		
	Treatment modality					
	Single	**Combined**		**Single**	**Combined**	
	OR 95% CI	**OR 95% CI**		**OR 95% CI**	**OR 95% CI**	
Insured	1.00	1.00		1.00	1.00	
Medicaid	**0.74 (057–0.96)**	**0.65 (0.49–0.86)**		0.83 (0.63–1.10)	**0.71 (0.52–0.97)**	
Uninsured	0.87 (0.60–1.25)	**0.52 (0.35–0.78)**		0.77 (0.52–1.13)	**0.52 (0.34–0.79)**	
	Overall mortality					
	Death	**HR 95% CI**	**p**	**Death**	**HR 95% CI**	**p**
			<0.01			0.10
Insured	458	1.00		221	1.00	
Medicaid	230	**2.40 (1.96–2.93)**		88	1.34 (0.97–1.85)	
Uninsured	68	**1.40 (1.03–1.89)**		47	1.41 (0.95–2.10)	

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radiotherapy or chemotherapy before 2010 but not after. After adjusting for potential confounders, Medicaid is independent predictor for poor overall mortality before 2010 ($p < 0.01$), however this increased mortality subsided after 2010 ($p = 0.10$). Multivariate analysis of 3-year mortality of data also revealed similar trends.

Conclusions

Despite overall good outcome, HL affects younger people and has worse outcome in underinsured people, it may cause significant loss of productive life. We observed equalization in overall mortality in HL patient diagnosed after 2010 across the three insurance types. As ACA measures are being gradually implemented, its positive impact will likely become more evident over the next years.