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**Title:** A feasibility study: Home-telemonitoring for rural lung cancer patients

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**Body:** Home-telemonitoring benefits for patients with lung cancer are unknown. We used a Honeywell system (GenesisDM©) to study WVU hospital patients with Time-1 data collected after consent in-hospital. T2 data began in-home monitoring for a feasibility group. At 14 days, research RNs collected T3 data at home & retrieved monitors/surveys. Demographic/disease profiles, vital signs, weight, oxygen saturation, & symptom data were studied. Telemonitors captured changes.

Table 1: Physiological data compared from T1 to T3

Time	Temperature (F)	Pulse rate (bpm)	Systolic BP (mmHg)	* Diastolic BP (mmHg)	Body weight (lbs)	Oxygen Sat (%)
At discharge (T1)	97	106	124	76	134.5	91
7 days post-discharge	97.5	103	129	71	127.5	93
14 days post-discharge	97.1	93	116	68	126.5	93

Note. Medians due to small sample \* F (2, 8) = 5.38, p= 0.03 Funded by NIH/NCI 1R15CA150999

T1 symptoms included pain, fatigue, coughing, & limited activities. Fatigue/limited activity persisted & pain/coughing decreased; poor appetite & nausea/ vomiting increased by T3. Activity limited patients also had >2 symptoms after discharge & lower functional status/Quality of Life (PFSS-11:M=3.36 at discharge vs. 2.73 at 14-days; WHO-5:M=2.08 at discharge vs. 1.8 at 14-days; p>.05). Landline phones easily transmitted data; others had monitors with built-in modems (T-Mobile©). Pt/family telemonitor satisfaction was high. Usual care was not satisfactory; comparison group retention was a problem. Other challenges related to patients' families & rural environments; the feasibility study will support a more efficient larger study. Telemonitors can be used to provide real-time data to educate rural patients to develop

self-management skills in living with lung cancer.