9000 **Oral Abstract Session, Sat, 1:15 PM-4:15 PM**

Oral nicotinamide to reduce actinic cancer: A phase 3 double-blind randomized controlled trial. *First Author: Andrew James Martin, NHMRC Clinical Trials Centre, University of Sydney, Sydney, Australia*

Background: Nicotinamide (vitamin B3) enhances DNA repair and prevents cutaneous immune suppression after ultraviolet (UV) radiation exposure. It reduces photocarcinogenesis in mice, and human non-melanoma skin cancers (NMSC) in Phase 2 clinical trials. We report the outcomes of the Phase 3 Oral Nicotinamide to Reduce Actinic Cancer (ONTRAC) Study. **Methods:** ONTRAC was a double-blind RCT conducted in two tertiary treatment centers in Sydney, Australia from 2012-2014. 386 immune competent participants with $\geq$ 2 histologically-confirmed NMSC in the past 5 years were randomized (1:1) to oral nicotinamide 500mg bd (NIC) or matched placebo (PBO) for 12 months. The primary endpoint was the number of new NMSCs to 12 months. Secondary endpoints included number of squamous cell carcinomas (SCCs), basal cell carcinomas (BCCs), and actinic keratoses (AKs) to 12 months. Skin reviews by dermatologists were performed 3 monthly. The sample size provided 90% power to detect a 33% difference in NMSC rates. Analysis was by intention-to-treat. **Results:** The mean age of study population was 66 years, the mean number of NMSC in the past 5 years was 8, and 63% were men. Treatment discontinuation rates were 9% for PBO versus 10% for NIC. 99% of patients underwent at least one post-baseline skin assessment. The average NMSC rate was significantly lower for NIC (1.77) than PBO (2.42). The estimated relative rate reduction (RRR) was 0.23 (95% CI: 0.04 to 0.38, p = 0.02) adjusting for center and NMSC history, and 0.27 (95% CI: 0.05 to 0.44; p = 0.02) with no adjustment. Treatment effects of comparable magnitude were found for both BCCs (RRR = 0.20, 95% CI: -0.06 to 0.39, p = 0.1) and SCCs (RRR = 0.30, 95% CI: 0 to 0.51, p = 0.05). AK counts were reduced for NIC compared to PBO by 11% at 3 months (p = 0.01), 14% at 6 months (p < 0.001), 20% at 9 months (p < 0.0001) and 13% at 12 months (p < 0.005). There were no clinically relevant differences in adverse event rates between the two arms. **Conclusions:** Nicotinamide reduces NMSC formation in high risk patients and is well tolerated. Furthermore, it is widely accessible as an inexpensive over-the-counter vitamin supplement and presents a new chemopreventive opportunity against NMSCs that is readily translatable into clinical practice. Clinical trial information: ACTRN12612000625875.

9001 **Oral Abstract Session, Sat, 1:15 PM-4:15 PM**

Long term follow up of survival in a randomised trial of wide or narrow excision margins in high risk primary melanoma. *First Author: Andrew J Hayes, The Royal Marsden NHS Trust, London, United Kingdom*

Background: Our randomized trial of 1 versus 3 cm clinical excision margins for high risk melanoma showed that narrow margins were associated with an increase in loco-regional relapse, but with no significant difference in melanoma-specific survival (MSS). We now report long-term melanoma-specific and overall survival from that trial. **Methods:** Patients with primary cutaneous melanoma two mm or more in Breslow thickness were randomized to a 1 or 3 cm excision. **Results:** Four hundred and fifty-three patients were randomized to a 1 cm margin and 447 patients to a 3 cm margin. Median age was 58.7 (IQR 47.2-69.2), median tumour thickness and percentage ulceration were similar in both groups (1 cm group: 3.0 mm and 31.8%, 3 cm group: 3.1 mm and 34.5%) . At a median follow-up of 8.8 years (IQR 6.3-11.3), 494 patients have died, with 359 of these deaths from melanoma. There were 194 melanoma deaths in the 1 cm group and 165 in the 3 cm group. Relative rate of melanoma death was estimated to be 24% higher in the 1 cm group than the 3 cm group on univariable analysis (hazard ratio (HR) 1.24; 95% confidence interval (CI) 1.00 to 1.52; p = 0.05). This effect was similar in multivariable analysis, adjusting for known prognostic factors (table).While there was an increase in the number of overall deaths in the 1 cm group compared to the 3 cm group (253 versus 241), this difference was not statistically significant in univariable analysis (HR 1.14: 95% CI 0.96 to 1.36, p = 0.14). **Conclusions:** With longer follow up, the previously reported increase in loco-regional relapse associated with narrow excision margins has translated into a significant increase in melanoma specific mortality.

			Overall Survival	Melanoma-Specific Survival
		N (%)	HR (95% CI) p value	HR (95% CI) p value
Margin	3cm	387 (50.2)	1.00	1.00
	1cm	384 (49.8)	1.19 (0.99-1.45) 0.07	1.27 (1.02-1.59) 0.036
Sex	Female	419 (54.3)	1.00	1.00
	Male	352 (45.7)	1.38 (1.11-1.71) 0.003	1.38 (1.07-1.17) 0.013
Thickness		771 (100)	1.18 (1.10-1.27) < 0.001	1.23 (1.13-1.3) < 0.001
Ulceration	Absent	475 (61.6)	1.00	
	Present	296 (38.4)	1.68 (1.38-2.04) < 0.001	1.75 (1.39-2.20) < 0.001
Site	Distal limb	244 (31.6)	1.00	1.00
	Proximal limb	173 (22.4)	1.23 (0.93-1.63) 0.03	1.44 (1.03-2.03) 0.003
	Trunk	354 (45.9)	1.41 (1.09-1.81)	1.69 (1.24-2.29)

LBA9002 **Oral Abstract Session, Sat, 1:15 PM-4:15 PM**

Survival of SLNB-positive melanoma patients with and without complete lymph node dissection: A multicenter, randomized DECOG trial. *First Author: Ulrike Leiter, Department of Dermatooncology, University of Tuebingen, Tuebingen, Germany*

The full, final text of this abstract will be available at abstracts.asco.org at 7:30 AM (EDT) on Saturday, May 30, 2015, and in the *Annual Meeting Proceedings* online supplement to the June 20, 2015, issue of the *Journal of Clinical Oncology*. Onsite at the Meeting, this abstract will be printed in the Saturday edition of *ASCO Daily News*.

9003 **Oral Abstract Session, Sat, 1:15 PM-4:15 PM**

Surveillance imaging with FDG-PET in the follow-up of melanoma patients at high risk of relapse. *First Author: Jeremy Howard Lewin, Peter MacCallum Cancer Centre, East Melbourne, Australia*

Background: In the modern era of melanoma treatment, approaches to imaging surveillance following surgery require reconsideration. The aim of this study was to evaluate disease sub-stage specific schedules of positron emission tomography (PET) surveillance for resected stage III melanoma. **Methods:** Between 2009-2013, patients at the Peter MacCallum Cancer Centre with fully resected AJCC stage III melanoma underwent serial whole body PET/CT scans according to schedules based on Bayesian disease sub-stage relapse probabilities. Schedules were stage IIIA: 6, 18 months; IIIB: 6, 12, 18, 24, 36, 48, 60 months; IIIC: 6, 12, 18, 24, 36 months. Descriptive statistics and contingency table analyses were used to evaluate outcomes for each schedule. **Results:** Eighty-six patients underwent PET surveillance according to schedule (IIIA: 11; IIIB: 50; IIIC: 25). In total, 232 PET scans were performed over a median follow-up of 28 months after surgery. Relapses were identified in 25 (29%) patients (IIIA: 4%; IIIB: 56%; IIIC: 40%), of which 20 (80%) were asymptomatic at the time of scanning. Incidental secondary malignancies were found in 6 (6.5%) patients. Stage IIIA/B relapses were more likely than stage IIIC to be loco-regional (IIIA/B: 42%; IIIC: 10%; p = NS). Nine (36%) relapsed patients underwent potentially curative resection (IIIA: 1; IIIB: 6; IIIC: 2), with 5 (IIIA: 1; IIIB: 4) free of disease after a median 32 months follow-up. The positive and negative predictive values (PPV, NPV) of an individual PET scan for detecting disease relapse at the same time point were: stage IIIB – PPV 69% (CI: 43-87%) and NPV 99% (CI: 95-100%), stage IIIC – PPV 73% (CI: 39-94%) and NPV 97% (CI: 90-100%). The PPV and NPV of each surveillance protocol for detecting any disease relapse were: stage IIIB – PPV 68% (CI: 43-87%) and NPV 97% (CI: 83-99%), stage IIIC – PPV 73% (CI: 39-94%) and NPV 86% (CI: 57-98%). The sensitivity and specificity of the overall approach of sub-stage specific PET/CT surveillance for detecting disease relapse were 88% (CI: 69-97%) and 84% (CI: 72-92%), respectively. **Conclusions:** FDG-PET is effective in detecting asymptomatic metastases and thus facilitating early treatment in patients who relapse after resection of stage III melanoma.