DACoN - **D**iabetes **A**lliance **Co**-commissioned Practice **N**urse led Model of Care – A pilot project

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Background:
Diabetes Alliance, a collaborative integrated care program between Primary Health Network and Tertiary Specialist services has integrated 108/314 general practices in the local health district to enhance diabetes care provision through specialist team led multidisciplinary case-conferences in general practices along with intensive education and practice level performance feedback.

Aim:
To evaluate the efficacy of DACoN in improving diabetes care processes following Diabetes Alliance integration.

Methods:
Three General Practices in the Hunter region were included in the pilot initiative; funded by NSW Health Integrated Care for a dedicated practice nurse (PN) 32 hours and a Diabetes Educator (DE) 8 hours per week, in addition to an Endocrinologist 8 hours per month. Optimisation of coding systems as well as screening processes were targeted.

Results:
DACoN was implemented for a total of 19 weeks from 11th February to 24th June 2019, providing 128 Diabetes Specialist and 168 DE consultations. Accurate coding of patients with Type 2 diabetes significantly improved (89%vs100%, $p<0.001$) and the number of patients with unrecorded HbA1c was reduced (8%vs5%, $p<0.05$) after DACoN completion (**Table 1**). Cardiovascular risk factor screening (BP, Cholesterol) occurred in approximately three quarters of patients and BMI recording continued to be limited at just over half of patients (≤6 months) before and after the project. DACoN increased screening for diabetic retinopathy (47%vs57%, $p<0.001$) over a two-year period, but foot and microalbuminuria screening did not improve further.

Conclusion:
DACoN has improved diabetes data collection and coding but failed to show categorical improvement in glycaemic control at practice level after preceding Diabetes Alliance incorporation, where HbA1c improvement was significant from 7.6% to 7.2% ($P<0.001$) within 6-months on intervention patients.[1] Excellent diabetes care remains difficult to achieve in the community due to resource limitations as well as barriers of data linkage and information integration.[2]

Care provided	BASELINE (January 2019)	1 YEAR FOLLOW UP (January 2020)	2019 vs 2020

	Practice 1	Practice 2	Practice 3	Practice 1+2+3	Practice 1	Practice 2	Practice 3	Practice 1+2+3	p value (1+2+3)
Total active patients (n)	2589	5933	4672	**13194**	2501	5836	4981	**13318**	
Type 2 diabetes (undefined coding) (n)	110	469	243	**822**	131	459	212	**802**	
Type 2 diabetes (correctly coded), n (%)	87 (79)	417 (89)	227 (93)	**731 (89)**	130 (100)	459 (100)	210 (100)	**799 (100)**	<0.0001
Type 2 diabetes (% of total active patients)	3.4	7.0	4.9	**5.5**	5.2	7.9	4.2	**6.0**	
HbA1c ≤ 7%, n (%)	34 (39)	281 (67)	107 (47)	**422 (58)**	58 (45)	304 (66)	115 (55)	**477 (60)**	0.43
HbA1c > 7% and ≤ 8%, n (%)	13 (15)	74 (18)	47 (21)	**134 (18)**	31 (24)	67 (15)	42 (20)	**140 (18)**	0.68
HbA1c > 8% and < 10%, n (%)	17 (20)	33 (8)	33 (15)	**83 (11)**	24 (18)	63 (14)	33 (16)	**120 (15)**	0.04
HbA1c ≥ 10%, n (%)	5 (6)	13 (3)	16 (7)	**34 (5)**	5 (4)	11 (2)	8 (4)	**24 (3)**	0.09
No HbA1c recorded (last 12 months), n (%)	18 (21)	16 (4)	24 (11)	**58 (8)**	12 (9)	14 (3)	12 (6)	**38 (5)**	0.01
U ACR recorded (last 12 months), n (%)	46 (53)	326 (78)	134 (59)	**506 (69)**	73 (56)	348 (76)	145 (69)	**566 (71)**	0.49
eGFR recorded (last 12 months), n (%)	53 (61)	368 (88)	185 (81)	**606 (83)**	99 (76)	406 (88)	183 (87)	**688 (86)**	0.08
Eye Exam (last 24 months), n (%)	25 (29)	250 (60)	65 (29)	**340 (47)**	46 (35)	292 (64)	116 (55)	**454 (57)**	<0.001
Foot Exam (last 6 months), n (%)	12 (14)	146 (35)	27 (12)	**185 (25)**	9 (7)	156 (34)	19 (9)	**184 (23)**	0.29
BP recorded (last 6 months), n (%)	60 (69)	344 (82)	158 (70)	**562 (77)**	91 (70)	375 (82)	174 (83)	**640 (80)**	0.13
Cholesterol recorded (last 12 months), n (%)	48 (55)	329 (79)	174 (77)	**551 (75)**	86 (66)	375 (82)	167 (80)	**628 (79)**	0.13
BMI recorded (last 6 months), n (%)	35 (40)	274 (66)	118 (52)	**427 (58)**	67 (52)	302 (66)	128 (61)	**497 (62)**	0.13

Table 1 **Diabetes related outcome measures**

Active patients, defined as patients who attend the general practice listed ≥ 3 times in the past two years.
HbA1c is recorded as most recent value in last 12 months.
U ACR – urine albumin-creatinine ratio

References:

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Word count: 295/300