

## CONFERENCE ABSTRACT

### An integrated model of care for children at risk of developing chronic respiratory disease.

4<sup>th</sup> World Congress on Integrated Care, Wellington, NZ, 23-25 Nov 2016

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**Hypothesis:** Chronic disease could be prevented by addressing persisting respiratory symptoms using a community programme in a high risk group of young children.

**Study design:** Children < 2 years with hospital admission for severe respiratory infection were randomised into usual care (197) or intervention (203).

**Intervention:** 3 monthly assessments with protocolled response for ongoing respiratory and other co-morbidities, follow up and referral to secondary and tertiary care. Good health behaviour encouraged with dental enrolment, screening for nutrition, iron and vitamin D deficiencies treated and vaccinations given when indicated. Environment interventions included referral to housing initiatives for house status and overcrowding, and smoke cessation offered.

The model of care for the intervention group involved a Community Health Worker, a Paediatric Nurse, a General Practitioner/Nurse Practitioner, a Paediatrician, and a Respiratory Specialist. After 2 years children were evaluated by an independent Paediatrician blinded to enrolment arm.

**Results:** There was 80% retention with a high burden of disease demonstrated in the intervention group. At the first visit 31% had respiratory disease/infection: 26% ear infection, 44% skin infection/abnormalities and 20% required immunisation. In total 68 were referred to secondary and 14 to tertiary services.

By the end of the study, fourteen (8%) in the intervention group were diagnosed with bronchiectasis, with earlier referral versus four (2%) in the control group.

**Discussion:** The team approach with the continuous relationship with the Primary Care providers worked well and gave the families a greater sense of continuity and engagement. It uncovered a high burden of disease in the intervention group and allowed smoother transition to paediatric care. There was no reduction in the respiratory disease in the intervention group but there is a significant concern that we are missing a number of children with bronchiectasis in the control group.

Aish; An integrated model of care for children at risk of developing chronic respiratory disease.

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**Keywords:** primary care; bronchiectasis; high risk

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