Aug 2025

Global Market Access

Payer value narrative: **Disease-related malnutrition in the Paediatric population**

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1. EXECUTIVE SUMMARY



EXECUTIVE SUMMARY

Clinical benefits of ONS

ONS improves growth in malnourished children[1]



Compact ONS (Fortini™ Compact) increases **appetite 4x more** than standard ONS .[1]

Quality of life and treatment adherence benefits with ONS

Nutritional supplementation can **improve QOL in malnourished children**[2]



Improvement was seen in overall condition up to **88% depending on ONS** type.[2]

Economic benefits of ONS

ONS use provides a **cost-effective, improvement** to paediatric hospital care[3-6]



Reductions in HCRU were seen in patients with cerebral palsy recieving specialised formula.[2]

Use of ONS has been estimated to **lead to budget savings** across countries[7]



Expected **savings of over $300k USD** in the Saudi Arabian private sector. **The key driver of savings is reduced length of stay.**[7]

DRM: Disease related malnutrition, ONS: Oral nutritional supplements, QoL: Quality of life, HCRU: Healthcare Resource Utilisation

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2. INTRODUCTION TO DRM



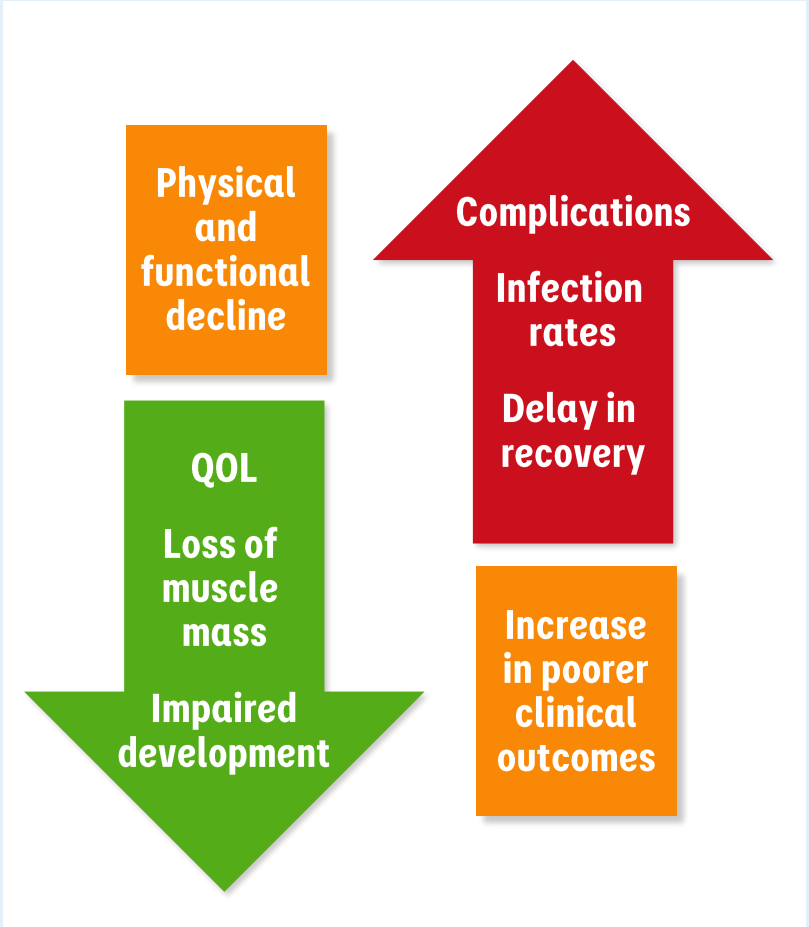
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PEDIATRIC DRM IS AN UNDERDIAGNOSED AND UNDERTREATED CONDITION, WITH SEVERE CONSEQUENCES[1-4]

DRM refers to **malnutrition resulting from disease** rather than community-related factors such as poverty.[1]

Prevalence of malnutrition in children can be difficult to determine due to lack of standardised screening procedures.[2-3]
Therefore, DRM may be **underdiagnosed**, leading to an **underestimation of burden**.[2-3]

Malnutrition impairs growth in infants and children.[4]
In severe cases DRM is associated with **increased mortality**.[5]



DRM: Disease related malnutrition; QOL: quality of life

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THE PREVALENCE OF MALNUTRITION IN CHILDREN IS SUBSTANTIAL, AND VARIES BY CARE SETTING[1-3]

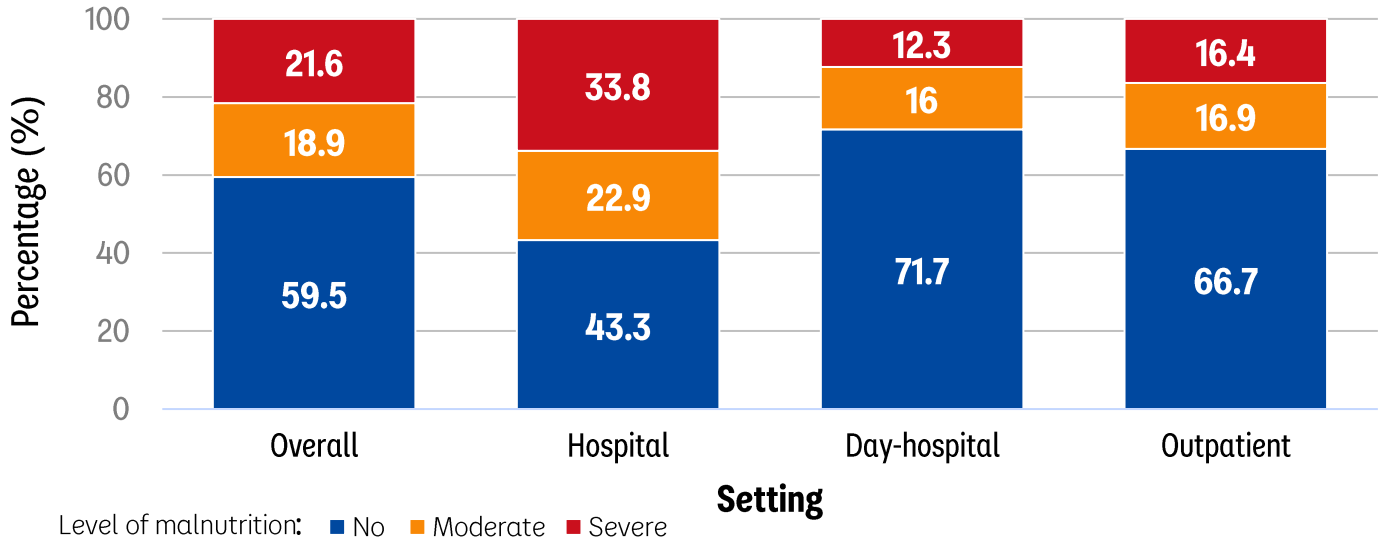
Estimates report that around

1 in 5 children

admitted to hospitals in Europe are malnourished at admission.[1-2]

Malnutrition at hospital admission affects between 7% 4 - 56% 2 of children in Europe, depending on the population and setting. Joosten et al 1 found 19% of children admitted to hospitals were malnourished at admission, in both acute and chronic forms in a nationwide Dutch sample.

Prevalence of pediatric nutritional status conditions ranges depending on care setting[2]



Data source: Diamanti et al. 2019

Prevalence of pediatric malnutrition is 2-fold higher in in-patient settings than in out-patient settings and day hospital clinics.[2]

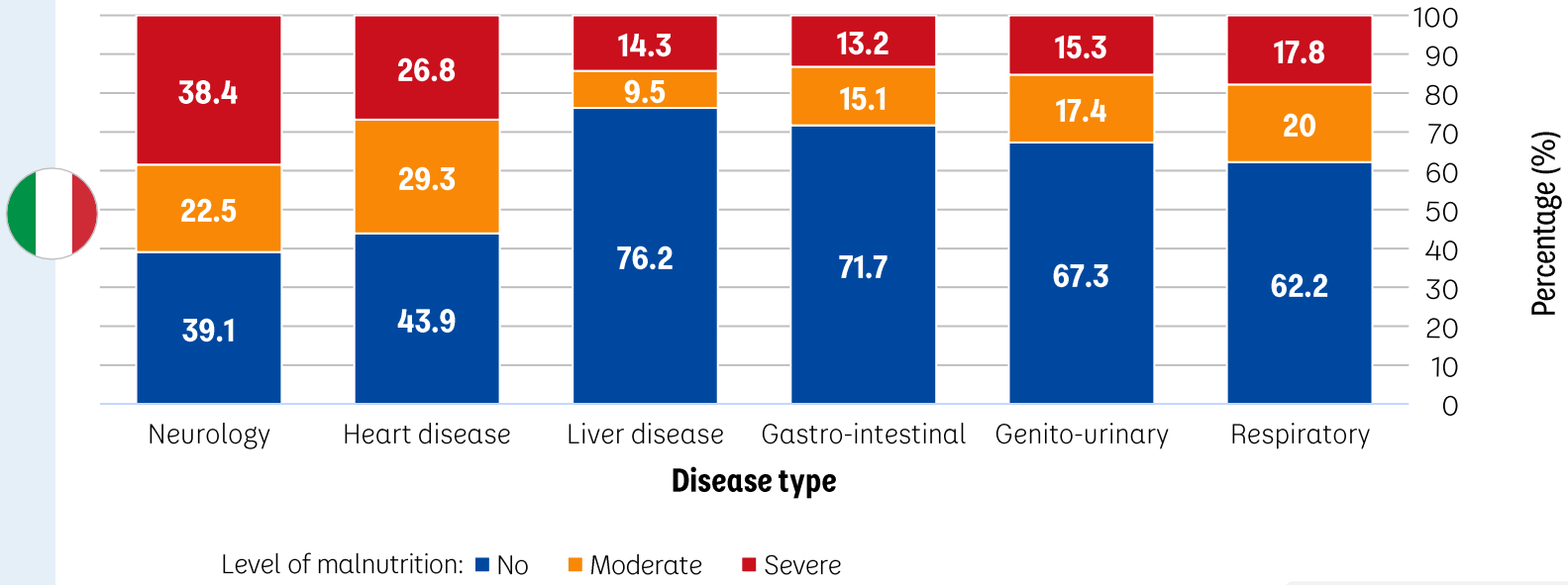
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PREVALENCE OF DRM VARIES DEPENDING ON THE UNDERLYING CONDITION[1-2]

PREVALENCE OF DRM VARIES BY DIAGNOSTIC GROUP[2]



Data source: Diamanti et al. 2019

The highest prevalence of DRM is often seen in children with[2]:

- Neurological diseases
- Respiratory diseases
- Cardiac diseases

DRM: Disease related malnutrition

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3. Economic burden of DRM



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MALNUTRITION SIGNIFICANTLY PROLONGS HOSPITALIZATION, CONTRIBUTING TO INCREASED ECONOMIC BURDEN[1-2]

Length of stay was **1.3 days longer** in **moderately malnourished** children than their well-nourished peers.[1]

Data source: Hecht *et al.* 2015

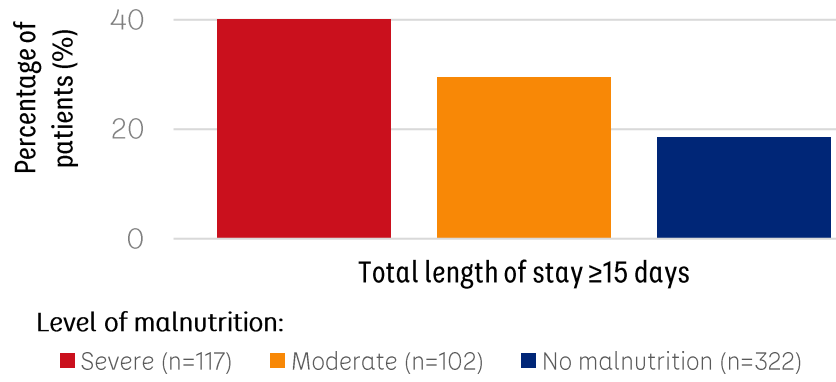
In **severely malnourished** children, length of hospital stay was **1.6 days longer** than their well-nourished peers.[1]

Data source: Hecht *et al.* 2015

HCRU is amplified with increasing severity of malnutrition, as shown in patients with chronic diseases[1-2] including Crohn's disease[3] and CHD[4-5].

Data source: Diamanti *et al.* 2019

Length of stay by DRM severity in patients with chronic diseases[2]



Moderate to severe malnutrition is **significantly associated with prolonged hospitalisation** in paediatric patients with chronic diseases*, compared to no/mild malnutrition, as demonstrated below.[2]

Outcome	Association between moderate-severe malnutrition	
	Adjusted odds ratio**	P-value
Total length of stay ≥ 15 days	**1.86** (1.21-2.88)	**0.005**

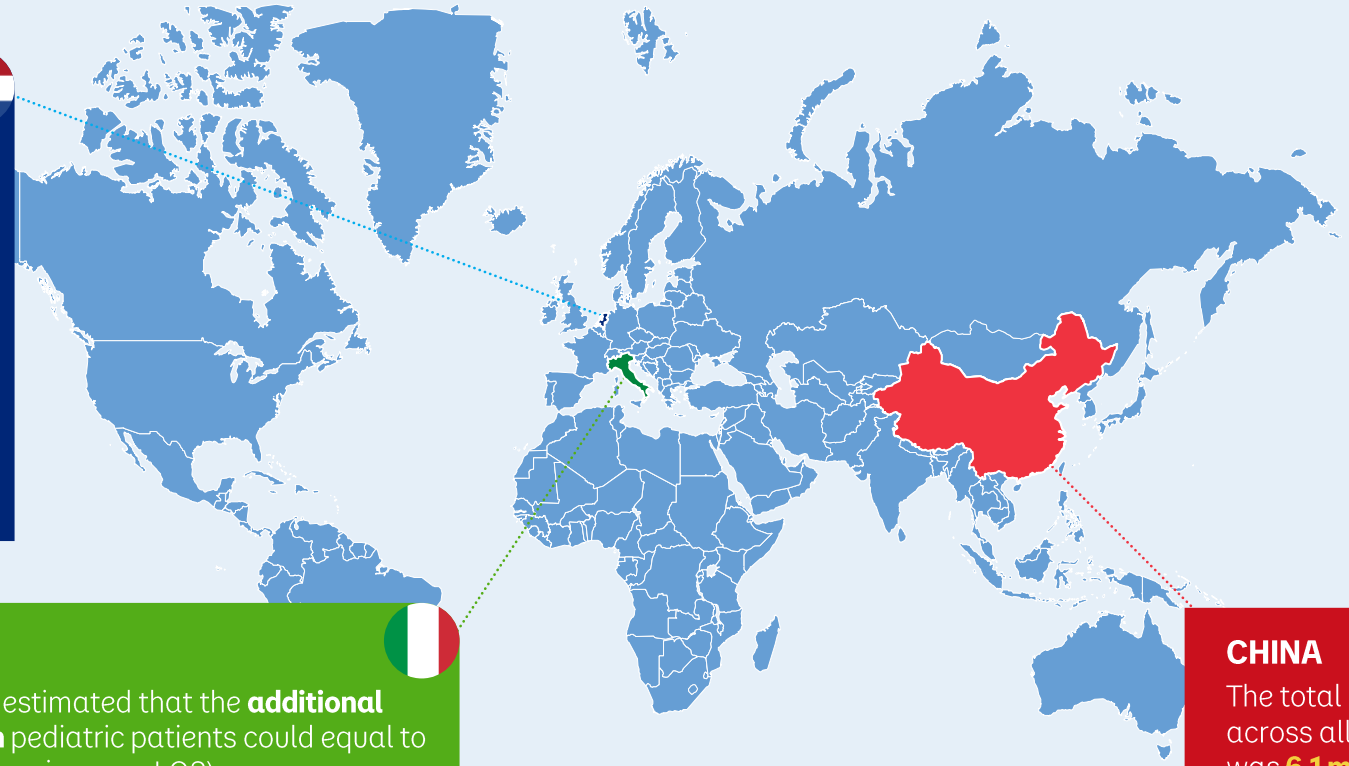
** Model including age, gender, healthcare setting, new referral and disease group*
*** Chronic diseases: neurological, heart disease, liver disease, gastro-intestinal, genito-urinary and respiratory.*

CHD: congenital heart defects; DRM: disease-related malnutrition; HCRU: healthcare resource utilisation cost

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DRM AMPLIFIES DISEASE-RELATED HEALTHCARE COSTS BY BILLIONS OF DOLLARS GLOBALLY

due to increased length of stay and hospital admissions leading to loss of life and disability[1-3]



THE NETHERLANDS

A **cost-of illness analysis** conducted in **2013** demonstrated that, the total additional direct medical costs of DRM in paediatric patients were estimated to be **€51 million** for **acute malnutrition**, **€46 million** when focused on **chronic malnutrition** and **€80 million** in cases of **overall** malnourished children.[1]

ITALY

A SLR and **cost-of- illness analysis** estimated that the **additional cost of DRM due to LOS increase in** pediatric patients could equal to **€252 million** (assuming 30% increase in mean LOS).

The study also estimated that the **additional cost** of DRM in pediatric patients due to **increased frequency of hospital admissions** could equal to **€327 million** (assuming 125,000 admissions).[2]

CHINA

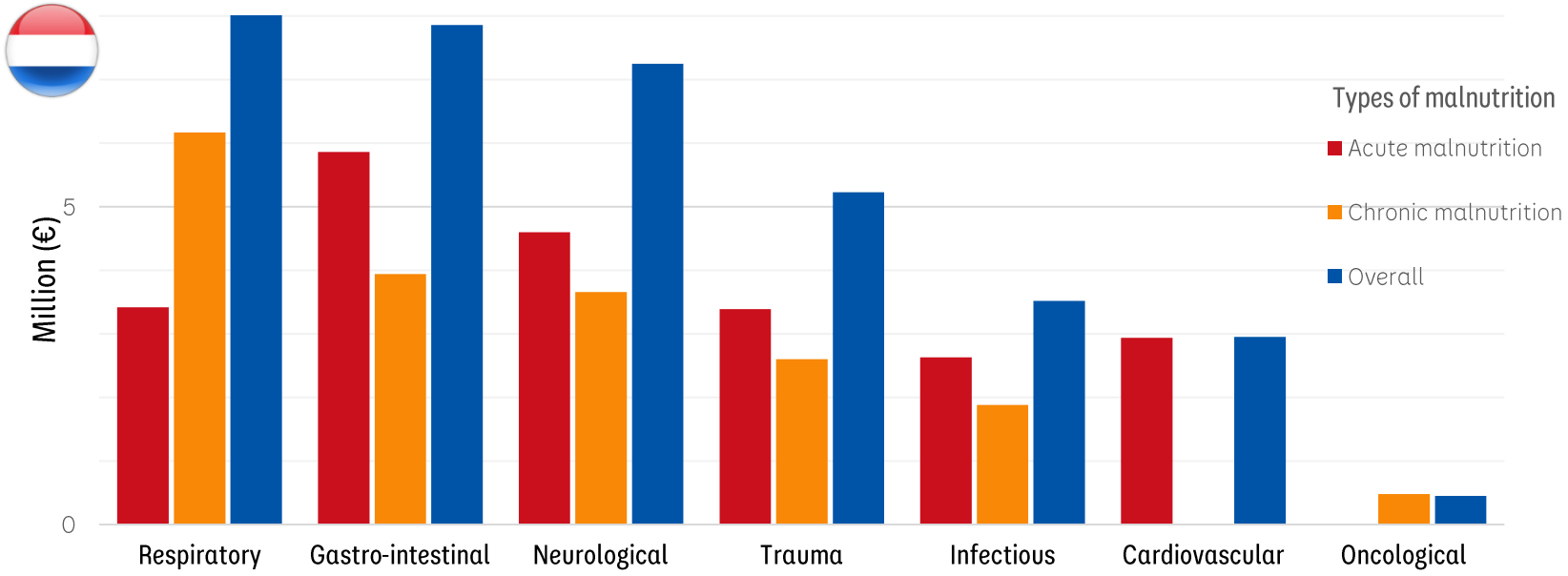
The total burden of DRM in China across all ages (paediatric and adult) was **6.1 million DALYs lost** (accounting for years of life lost and years with disability), for an economic burden of **US $66 billion** (CN¥ 447 billion) annually.[3]

CN: Chinese; DALY: daily-adjusted life years; DRM: Disease related malnutrition, LOS: Length of stay, SLR: systematic literature revie; QALY: quality-adjusted life year

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RESPIRATORY, GASTRO-INTESTINAL, AND NEUROLOGICAL CONDITIONS INCUR THE HIGHEST HEALTHCARE COSTS IN PAEDIATRIC DRM[1]

TOTAL ANNUAL ADDITIONAL COSTS OF PAEDIATRIC DRM IN THE NETHERLANDS, BY THERAPY AREA[2]



Total cost of DRM can vary by associated therapeutic condition, with **respiratory, gastro-intestinal and neurological conditions** incurring the highest costs.[1-2]

These data took into account **LOS,** which was on average **40% higher** in malnourished patients compared with well-nourished patients, which could contribute to the additional costs associated with DRM.[2]

Total cost of DRM can vary by associated therapeutic condition, with **respiratory, gastro-intestinal and neurological conditions** incurring the highest costs.[1-2]

CHD: congenital heart defects;
COPD: chronic obstructive pulmonary disease;
DALYs: disability-adjusted life years;
DRM: Disease related malnutrition;
HIV: human immunodeficiency virus;
LOS: length of stay

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4. Clinical value of ONS



A WIDE RANGE OF EVIDENCE HAS SHOWN IMPROVEMENTS IN THE NUTRITIONAL STATUS OF CHILDREN AFTER RECEIVING ONS[1-9]

A meta-analysis of eleven randomised controlled trials in undernourished (or at nutritional risk) children up to 12 years old, without chronic disease, demonstrated **improvements in nutritional status in children receiving ONS** compared to placebo or dietary counselling alone.[1]

Similarly, **improvements in nutritional status** with enteral nutrition or ONS have been found in **patients with chronic disease** (including neurological disease), both in clinical trials2 and real-world studies.[3-8]

Continued **parental self-administration** of ONS has also been shown to **slow down loss of growth percentiles**, supporting continued weight gain in picky-eating children at nutritional risk.[9]

*A Z-score refers to the distance of a value from that of the population mean in units of the standard deviation; a reduction in Z score represents an improvement with the score being more aligned to population levels than pre-intervention. ONS: oral nutritional supplements

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6. Silistre. 2020. Effects of hypercaloric enteral intervention on malnutrition patients with a history of febrile seizure before the age of six. Journal of Surgery and Medicine.
7. Pellegrino, Opramolla, Giugliano, Pizzol, Augustoni, & Calvo. 2024. The Impact of Crohn's Disease Exclusion Diet (CDED) Combined with Partial Enteral Nutrition (PEN) on Nutritional Status and Mucosal Inflammation of Children with Crohn's Disease. ESPGHAN.
8. Matuszczyk M, Meglicka M, Wiernicka A, Jarzębicka D, Osiecki M, Kotkowicz-Szczur M, Kierkuś J. Effect of the Crohn's Disease Exclusion Diet (CDED) on the Fecal Calprotectin Level in Children with Active Crohn's Disease. J Clin Med. 2022 Jul 17;11(14):4146. doi: 10.3390/jcm11144146.
9. Ghosh, A. K., Kishore, B., Shaikh, I., Satyavrat, V., Kumar, A., Shah, T., ... & Huynh, D. T. (2018). Continuation of oral nutritional supplementation supports continued growth in nutritionally at-risk children with picky eating behaviour: A post-intervention, observational follow-up study. Journal of International Medical Research, 46(7), 2615-2632.

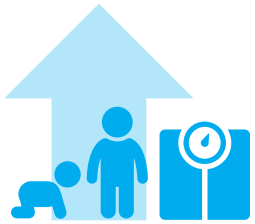
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FORTINI™ COMPACT IMPROVES GROWTH AND WEIGHT TO POPULATION LEVELS IN CHILDREN REQUIRING NUTRITIONAL SUPPORT1

Children receiving Fortini™ gained significant weight (+0.28kg) and **height** (+0.87cm).[1]

A randomized controlled trial of **pediatric patients with faltering growth** requiring ONS to meet their nutritional needs receiving Fortini™ compact (n=27) or standard ONS (n=24) found:



Fortini™ led to a significant increase **in weight** (+0.28kg over 4 weeks, p=0.007).[1]



Fortini™ led to a significant increase **in height** (+0.87cm over 4 weeks, p<0.001).[1]



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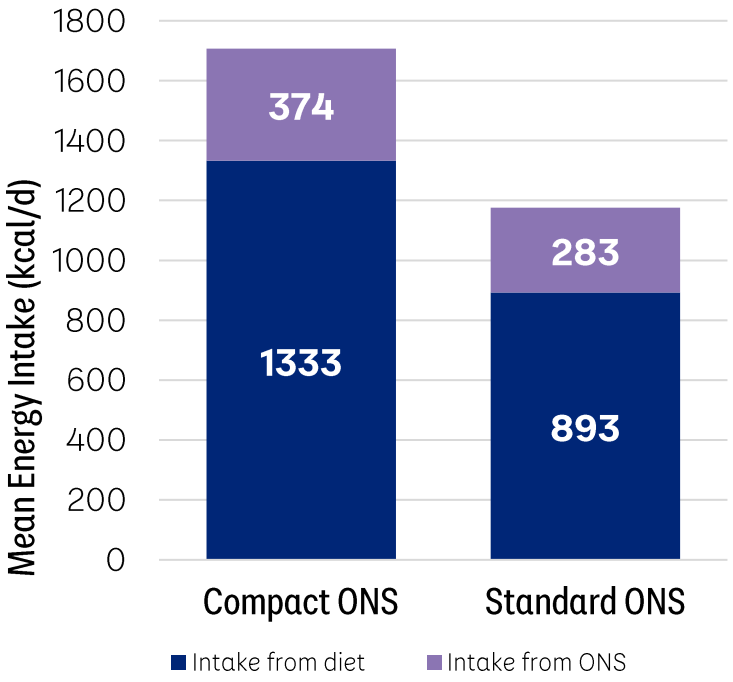
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ENERGY INTAKE IS 45% HIGHER WITH FORTINI™ COMPACT VS. STANDARD ONS[1]

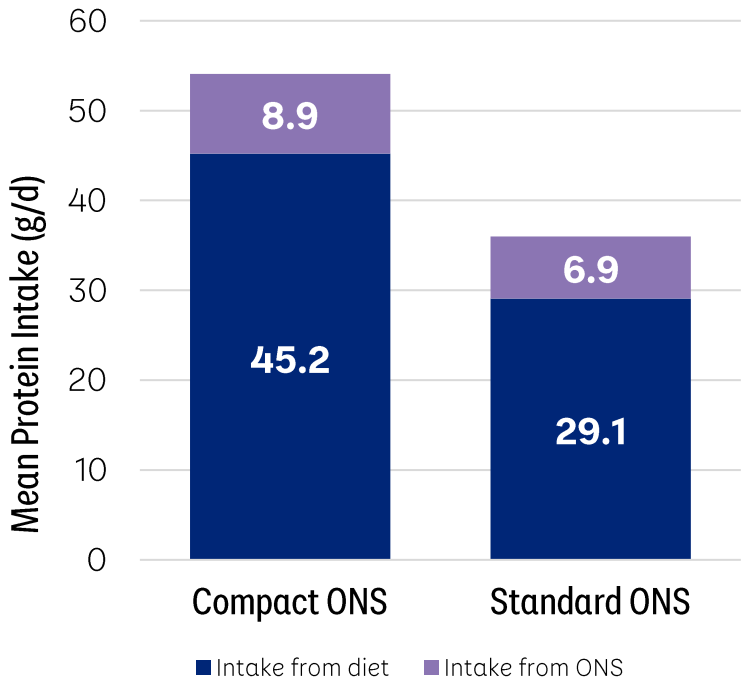


Fortini™ compact is energy and nutrient dense, increasing energy intake without affecting fullness.[1]

Mean total daily energy intake is 45% higher with Fortini™ Compact vs. Standard ONS[1]



Mean total daily protein intake is 25% higher with Fortini™ Compact vs. Standard ONS[1]



Data source: Hubbard *et al.* 2020

ONS: oral nutritional supplements

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CLINICAL TRIAL EVIDENCE HAS SHOWN IMPROVEMENTS IN NUTRITIONAL STATUS OF CHILDREN AFTER RECEIVING FORTINI™ COMPACT[1]



Fortini™ compact delivers on complete nutrition into 40% less volume than standard 200ml paediatric ONS.[1]

A randomized controlled trial of pediatric patients (n=51) found:

40% lower volume than standard ONS.[1]
The smaller volume of Fortini™ Compact allows a greater capacity for patients to consumer more regular foods.[1]

Fortini™ Compact improved appetite in 4x more patients than standard ONS (48% vs 12%)[1]
48% of patients receiving Fortini™ compact in the clinical trial improved their appetite over time vs 12% with standard ONS.[1]

These findings are **contrary to the suggestion that high-energy liquid feed supplements may suppress appetite** and replace normal diet.[1]

ONS: oral nutritional supplements

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5. Economic value of ONS

Note: Limited data identified on economic value



ONS USE IN HOSPITALIZED PAEDIATRIC PATIENTS PROVIDES A COST-EFFECTIVE, EVIDENCE-BASED APPROACH

to improving paediatric hospital care[1-3]

Rehospitalisation rates are lower in patients with chronic disease who are treated with nutritional therapy, compared to those who are not treated with nutritional therapy.[1]

Outcome	Adjusted rate ratio*
Adjusted rehospitalization rate	**0.699** (0.384- 0.969)
Adjusted nonelective rehospitalisation rate	**0.451** (0.208-0.843)

* Model including nutrition status, diagnosis, severity of illness, and risk of mortality.

Medical nutrition has also been associated with reductions in hospitalisations and a reduction in duration of hospital stay in DRM, including heart disease-related malnutrition.[1-3]

ONS is associated with **substantial decreases in LOS** and episode cost among paediatric inpatents.[3]

One US study estimated that the **episode cost** savings from ONS amounted to **$1768**.[3]

One US study of **paediatric patients aged 2-8 years** old estimated…

3 million children are hospitalised nationally.

Assumption: **1.09%** of these patients **receive ONS.**[3]

ONS = total cost savings of approximately **$ 57.8 million** annually.

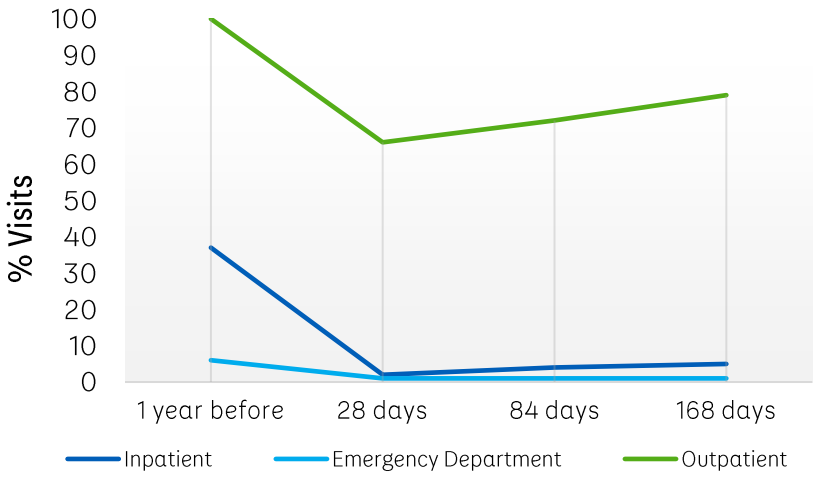
DRM: disease-related malnutrition; LOS, Length of stay, ONS: oral nutritional supplements

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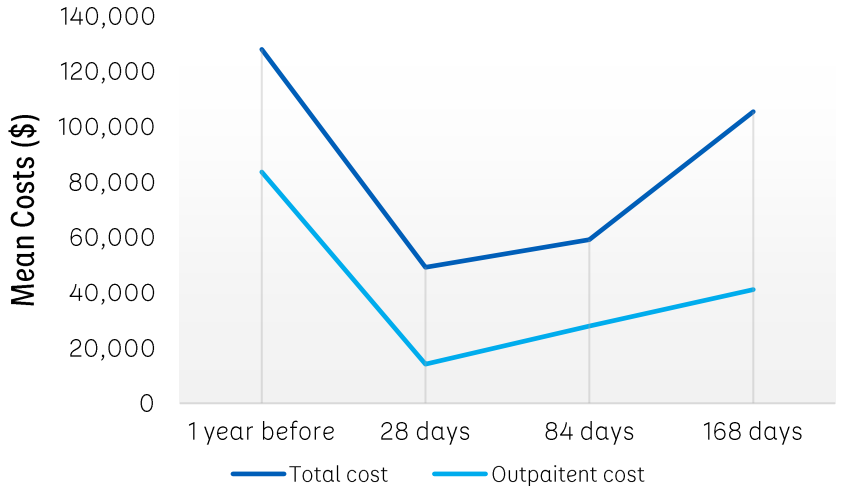
SPECIALISED FORMULAS CAN HAVE SIGNIFICANTLY REDUCED HEALTHCARE COSTS FOR INPATIENTS AND OUTPATIENTS IN CEREBRAL PALSY[1]

A 2024 retrospective study utilised nationally representative patient data from the US to identify the clinical and economic outcomes associated with the use of commercial feeding tube formula in a post-acute care setting.1



They found a **significant reduction in mean number of hospital visits** ($p < 0.05$), especially outpatient visits in children with cerebral palsy who received specialised formula ≥7 days.1

Data from Henrikson et al. 2023



Significant **reductions in HCRU translated into significant cost savings** ($p < 0.05$), with lower mean total costs at 168 days post-index in children with cerebral palsy who received specialised formula.1

Data from Henrikson et al. 2023

The number of children experiencing GI intolerance symptoms **reduced by 42%** at **168 days post-acute care** with specialised formula.[1]

GI: gastrointestinal; HCRU: healthcare resource utilisation; US: United States

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NUTRIENT-DENSE FORMULA, INCLUDING INFATRINI™, HAS BEEN LINKED TO BUDGET SAVINGS ACROSS COUNTRIES[1]



A guided-questionnaire study of 27 clinicians in the middle east region **projected savings due to introduction of nutrient-dense formula (Infatrini™, NutriniDrink™)** among **paediatrics**.

The survey provided information on the following factors which were used for these projections: prevalence of DRM, annual hospitalization rates, LOS, and nutrition intake:*



The **key driver** of savings is **reduced hospital length** of stay for patients.[1]

Country	Currency	Costs among children (1-5 years)	
		Public sector	Private sector
Egypt	EGP	1,894,253	1,509,945
	USD	37,406	29,817
Saudi Arabia	SAR	213,316	1, 206,802
	USD	56,862	321,690
Kuwait	KWD	35,000	10,743
	USD	113,577	34,862
UAE	AED	112,530	476,877
	USD	30,637	129,833

*Data sourced from conference abstract. Costs have been converted to US dollars for ease of interpretation (conversion rate as of March 24th, 2025: EGP= 0.020 USD; SAR= 0.25 USD; KWD= 3.25 USD; AED = 0.27 USD)
AED: United Arab Emirates Dirham; EGP: Egyptian pound; KWD: Kuwaiti Dinar; SAR: Saudi Riyal; UAE: United Arab Emirates.

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6.
Quality of life and treatment adherence with ONS



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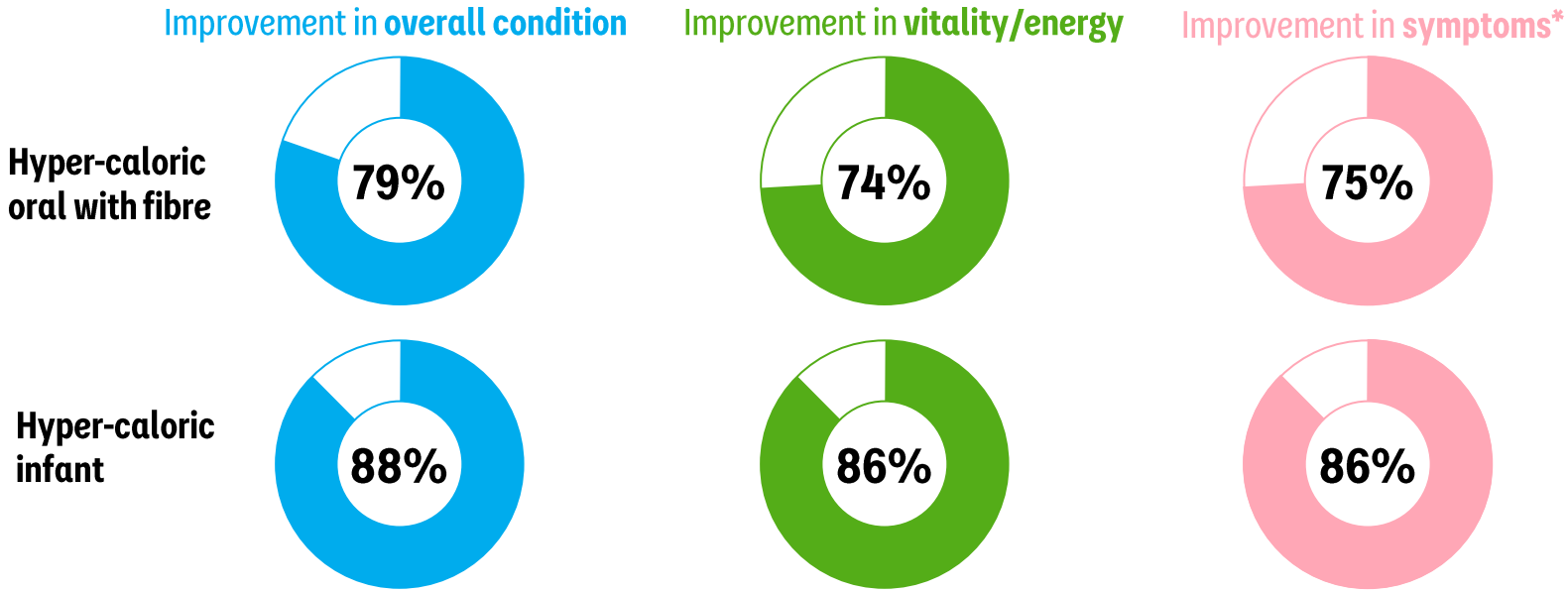
NUTRITIONAL SUPPLEMENTATION CAN IMPROVE QOL IN MALNOURISHED CHILDREN[1]



Paediatricians and families of malnourished children report an **excellent benefit of prescribed formulas to improve quality of life and satisfaction** to paediatric patients.[1]

Prescribed formulas improve patient condition, reduce symptoms and increase patient vitality.[1]

Improvement in components of QOL vary depending on type on ons received



*Symptoms refer to the symptoms for which the formula was prescribed.

QoL: quality of life

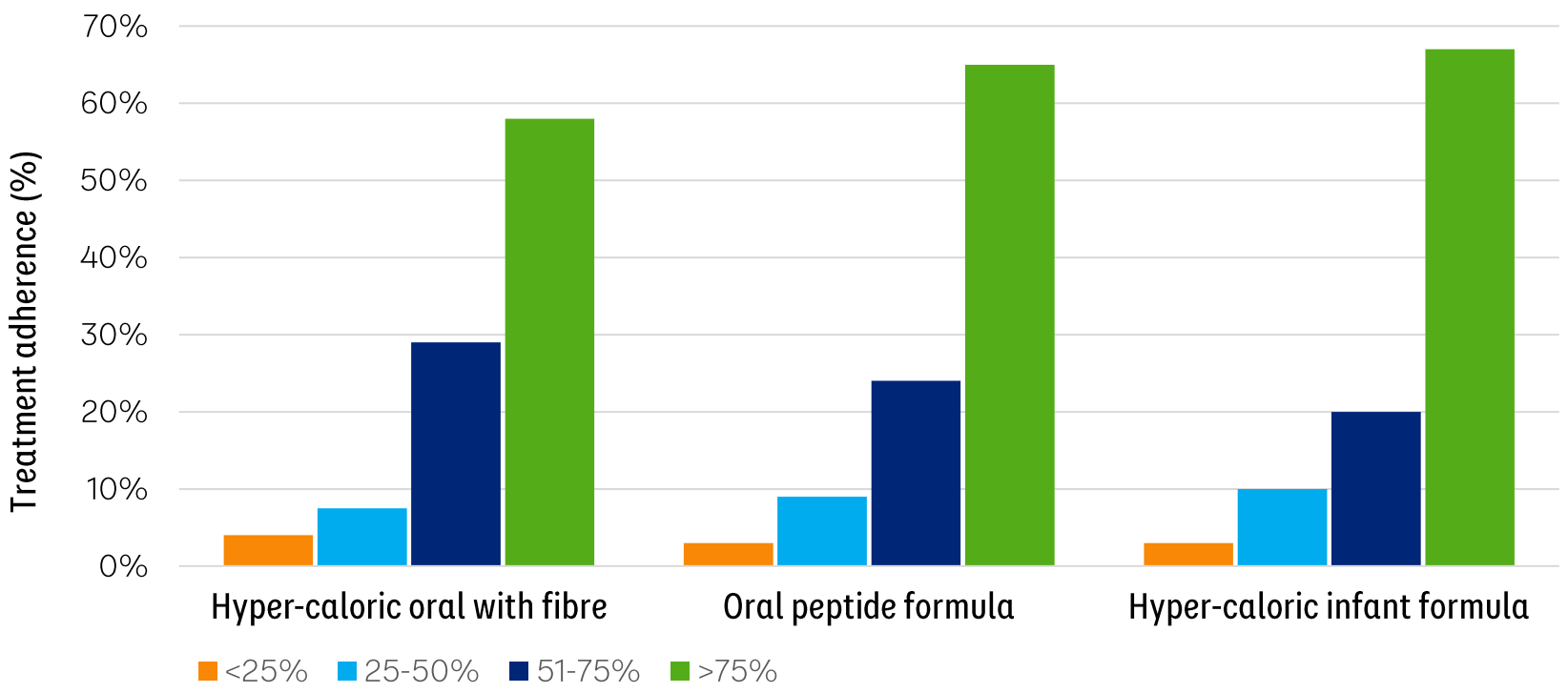
Data source: Hernani *et al.* 2024

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ONS IS WELL-TOLERATED IN MALNOURISHED PAEDIATRIC PATIENTS AS SHOWN THROUGH THE HIGH RATE OF TREATMENT ADHERENCE[1]

Treatment adherence is high in children receiving ONS.[1]

Paediatric treatment adherence with ONS[1]



Data source: Hernani *et al.* 2024

ONS: oral nutritional supplements

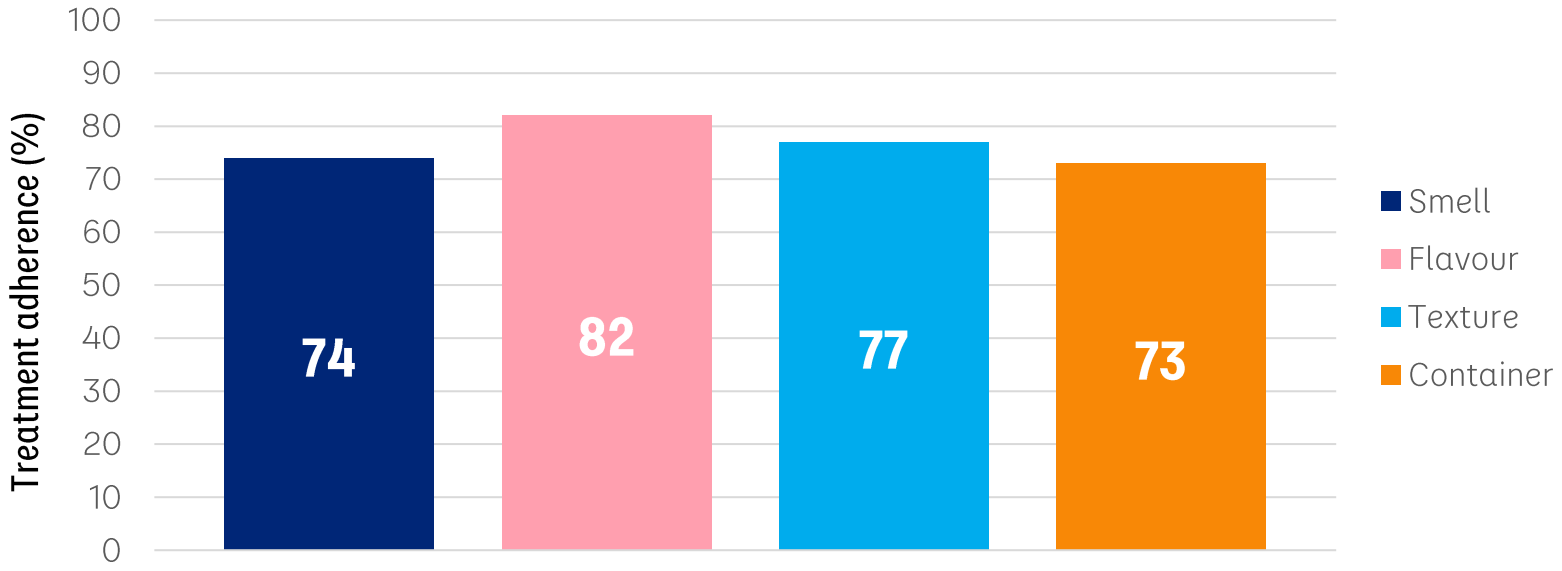
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FACTORS IMPORTANT TO COMPLIANCE INCLUDE ORGANOLEPTIC CHARACTERISTICS SUCH AS TASTE AND TEXTURE[1]



a successful paediatric ONS is one that children can finish.[1]

Impact of organoleptic characteristics on enteral nutrition adherence in patients receiving nutritional supplements[1]



Organoleptic characteristics have been found to influence the treatment adherence of paediatric patients receiving nutritional supplementation, important for compliance in paediatric patients.[1-2]

Data source: Hernani *et al.* 2024

ONS: oral nutritional supplements

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FORTINI™ PRODUCTS OFFERS NUTRITION IN DIVERSE FLAVOURS AND TEXTURES[1-2]

Fortini™ /Nutrinidrink™ Range is **F**ood for **S**pecial **M**edical **P**urposes (**FSMP**) for the dietary management of **disease-related malnutrition** and risk of faltering growth.[1]

Fortini™ products are tailored for a broad range of needs through a variety of formats and textures.[1-2]



Fortini™ Compact is energy and nutrient dense and was well accepted among children in a clinical trial:[2]

- **60%** found it pleasant to drink
- **65%** enjoyed the taste
- **68%** liked the thickness

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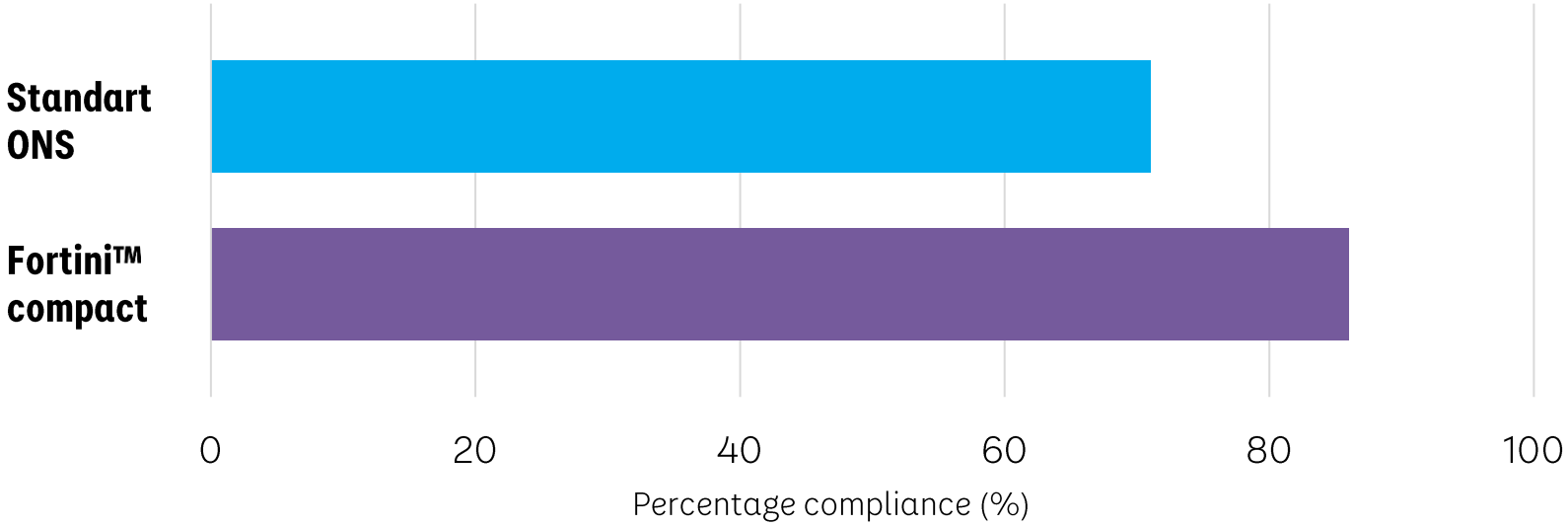
COMPLIANCE IS HIGHER WITH FORTINI™ COMPACT VS. STANDARD PAEDIATRIC ONS[1-3]

ONS energy-density and compliance are positively correlated.[1]

Compliance translates directly into better nutritional intakes and growth parameters.[2]

Compliance is associated with **better nutritional** outcomes.[2]

Compliance with **Fortini™ compact** was of **86%, while only of 71% with standard ONS in the clinical trial[2]**



A similar rate of compliance has been found between Fortini™ and specialised (disease-specific) formula in paediatric Crohn's disease (7% vs 4% treatment non-adherence).[3]

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NUTRINI™ AND NUTRINIMAX™ OFFER TUBE FEEDING WHICH CAN BE TAILORED TO THE NEEDS & CONDITIONS OF PATIENTS[1]

Nutrini™ (for children 1-6 years) and **Nutrinimaxi™** (for children 7-12 years) **are ranges of tube feeding products which can be used as a sole source of nutrition.**[1]



These products can be tailored for a broad range of needs & conditions through adapted formulations varying on:

- **Energy density** (low, standard or high)
- **Type of protein** (intact vs hydrolysed)
- **Fiber (with or without)**
- **Volume** (200mL or 500mL)
- **Packaging** (collapsible bottles or pouch)

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7.
Limitations
(summary of evidence)



LIMITED DATA WERE IDENTIFIED ON THE BURDEN OF DRM AND THE BENEFIT OF ONS IN THE PAEDIATRIC POPULATION AGED 1+ YEARS

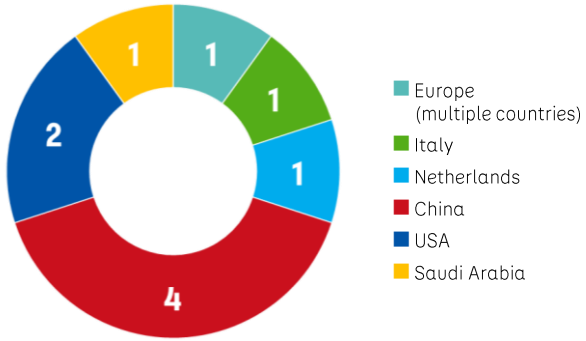
Several limitations were identified in the evidence base:

- Studies primarily focused on clinical benefit, **with limited evidence** on **burden** and economic benefit. Additionally.
- There was limited evidence identified by therapy area, such as CP and CHD.
- Minimal RCT evidence identified to demonstrate the benefit of ONS and tube feeding.
- Setting not specified in papers (e.g. outpatient/hospitalised), meaning evidence on the value of ONS in different settings was **limited**.

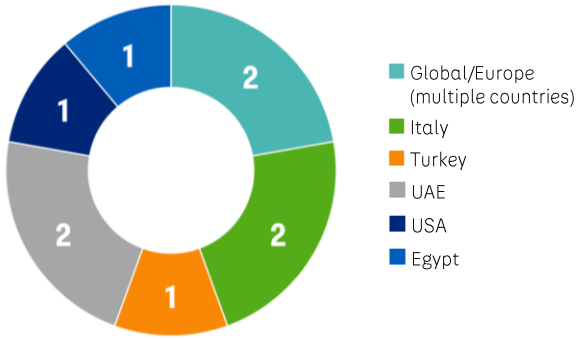
CHD: Congenital heart disease, CP: Cerebral Palsy, DRM: disease-related malnutrition HCRU: healthcare resource utilisation; ONS: Oral nutritional supplements, RCT: Randomized controlled trial

There were limited economic data identified both within and outside Europe, most of which reported on HCRU

Economic **burden of DRM**[1-10]



Economic **benefit of ONS**[10-18]



As such, **a summary is provided outlining the current data gaps in this population** and recommendations on future research to bridge these data gaps

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SUMMARY OF EVIDENCE

Introduction to DRM		
Value messages	**Potential gaps**	**Recommendations**
Paediatric DRM is an underdiagnosed and undertreated condition, with severe consequences	There are sufficient data to support this value message.[1-5]	NA
The prevalence of malnutrition in children is substantial, and varies by care setting	The evidence for this message comes from European studies.	As the literature review that informed the value narrative was focused on the burden of DRM and economic benefits of ONS, the Danone clinical team may be aware of further global evidence to support this message.
Prevalence of DRM varies depending On the underlying condition	The evidence for this message comes from European studies.	

DRM: Disease-related malnutrition; **NA**: not applicable

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SUMMARY OF EVIDENCE

Economic burden of DRM		
Value messages	**Potential gaps**	**Recommendations**
Malnutrition significantly prolongs hospitalisation, contributing to increased economic burden	There are sufficient data to support this value message.1-5	NA
DRM amplifies disease-related healthcare costs by billions of dollars globally due to increased length of stay and hospital admissions leading to loss of life and disability	Most data available for paediatrics are HCRU data rather than cost data. Limited data specific to TAs of interest, such as CP were identified.	• Leverage Danone's clinical team to build out narrative using available epidemiological data (e.g. costs identified for the Netherlands and Italy may be similar in other European markets with similar prevalence rates and healthcare systems). • Sponsoring cost-of-illness studies for DRM in countries of interest. • Utilising local registry data/ICD studies combined with costed care pathways.
Respiratory, gastro-intestinal and neurological conditions have shown to incur the highest costs	Cost data are limited, both in Europe and globally. The data available demonstrate a substantial economic burden of DRM in children.	**Further evidence is required which incorporates outpatient care costs, direct non-health care costs, indirect costs, productivity losses** of the parents and/or caregivers due to absence from work.

CP: cerebral palsy; **DRM**: Disease-related malnutrition; **HCRU**: healthcare resource utilization; **ICD**: International Classification of Diseases; **NA**: not applicable; TA: therapy area

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SUMMARY OF EVIDENCE

Clinical value of ONS		
Value messages	**Potential gaps**	**Recommendations**
A wide range of evidence has shown improvements in the nutritional status of children after receiving ONS	There are sufficient data to support this value message.1-9	NA
Fortini™ Compact improves growth & weight to population levels in children requiring nutritional support	The clinical data are focused on Fortini™ Compact and not on the entire Danone portfolio	**Further evidence of the clinical effectiveness of other Danone products** is required, through publication of clinical trial data or sponsorship of real-world studies
Energy intake is 45% higher with Fortini™ Compact vs. Standard ONS	There are sufficient data to support this value message.10	NA
Clinical trial evidence has shown improvements in nutritional status of children after receiving Fortini™ Compact	• It would be beneficial to also show real-world improvements in clinical status, specifically with Danone products. • However, expected improvements can be inferred through positive clinical trial data and the broader evidence to support the clinical benefits of ONS in the real-world.	Sponsor real-world studies on clinical outcomes with Danone ONS and tube feeding products

ONS: oral nutritional supplements; **NA**: not applicable

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SUMMARY OF DATA GAPS

Economic value of ONS		
Value messages	**Potential gaps**	**Recommendations**
ONS use in hospitalised paediatric patients may provide a cost-effective, evidence-based approach to improving paediatric hospital care.	ONS use has been linked to reductions in HCRU, and cost savings. However, cost savings are based on a single US study.	**Further evidence** on the economic value of ONS in European paediatric population required. Cost-saving models could be developed to determine the impact of Danone's ONS intervention on a baseline market. However, real-world data is required related to the impact of the Danone product on HCRU data such as the length of hospital stay for patients.
Specialised formulas can have significantly reduce healthcare costs for inpatients and outpatients in cerebral palsy	Data based on one study.	**Further evidence** needed on the economic impact of ONS on costs in TAs of interest such as cerebral palsy.
Nutrient-dense formula, including Infatrini™ has been linked to budget savings across countries	Data sourced from conference abstract.	**Further evidence** on the economic value of ONS in European paediatric population required.

HCRU: healthcare resource utilisation; **ONS**: oral nutritional supplements; **TA**: therapy area; US: United States.

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SUMMARY OF EVIDENCE

Quality of life and treatment adherence benefits with ONS		
Value messages	**Potential gaps**	**Recommendations**
Nutritional supplementation can improve quality of life in malnourished children	Supported by **competitor data**	Data needed to demonstrate QoL improvements with Danone products through **patient-reported outcome** and/or **patient preference** studies. Competitor data for similar products can be used to demonstrate expected positive real-world outcomes, however, they should be positioned in a way that does not diminish the need for additional ONS options.
A high rate of treatment adherence with ONS is found in malnourished paediatric patients	Supported by **competitor data**	Data needed to demonstrate **real-world adherence with Danone products**. This data can be used to demonstrate that the compliance results from the clinical trial are expected to translate to real-world settings. Physician surveys or GP record studies are recommended to produce data on adherence.
Factors important to compliance include organoleptic characteristics such as taste and texture	Supported by **competitor data**. However, this is appropriate as this statement is used to introduce the importance of these factors to children.	NA

GP: general practioner; NA: not applicable; **ONS**: oral nutritional supplements; **QoL**: quality of life

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SUMMARY OF EVIDENCE

Quality of life and treatment adherence benefits with ONS		
Value messages	**Potential gaps**	**Recommendations**
Fortini™ products offer enteral nutrition in diverse flavours and textures	Clinical trial data is focused on Lack of real-world evidence to support use of Fortini™ and clinical data for other Danone products	Sponsor real-world studies on the quality-of-life benefit of Fortini™ **Publication of clinical trial data** for other Danone products.
Compliance is higher with **Fortini™ Compact** vs. standard paediatric ONS		
Nutrini™ and **Nutrinimax™** offer tube feeding which can be tailored to the needs & conditions of patients	Lack of clinical data and real-world evidence for Danone tube feeding products	Publishing clinical data on **tube feeding products and sponsor real-world studies.** In the absence of clinical data, literature searches and/or conducting studies to demonstrate patient/caregiver preference for additional tube feeding options. Additionally, physician surveys or target product profile (TPP) testing could be conducted.

NA: not applicable; TP: target product profile; ONS: oral nutritional supplements

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APPENDIX



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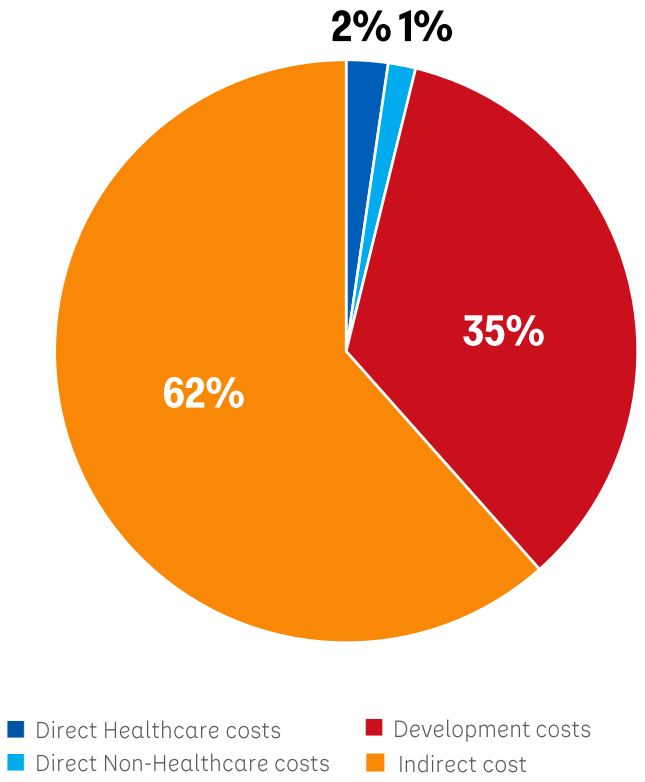
MALNUTRITION IN CEREBRAL PALSY CAN INCREASE THE ECONOMIC BURDEN ON FAMILIES AS WELL AS THE HEALTHCARE SYSTEM

Estimates suggest that **20% of children with CP are undernourished.**[1]

Intolerance to tube-feeding can lead to increased healthcare costs and associated costs in patients receiving home enteral nutrition.[3,5,7]

Indirect costs incurred by parents and children can have the greatest burden.[5]

Indirect costs due to CP[5]



CP is the **most common cause of significant motor impairment** in children, affecting 2 per 1000 births.[2]

The lifetime healthcare costs for a child with CP is **13 times higher** compared to a child without lifetime healthcare needs.[5]

In 2009, it was estimated that over a **lifetime**, the cost of CP can amount to up to **€ 860,000 per person.**[4] In 2025, this could amount to **€1.2 million.**

1 in 2 children with CP can require **up to two hospital admissions in a six-month period**, posing a significant HCRU burden.[5,6]

CP: cerebral palsy; HCRU: healthcare resource utilization.

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PRODUCT-BASED COMPETITOR DIFFERENTIATION

	Danone Fortini™/Nutrini™	Abbott PediaSure	Nestle Compleat Pediatric	Nestle Ascenda	Nestle Peptamen Junior
Formulation	Best served chilled. For enteral use only. Can be gently heated or frozen. Suitable for tube feeding or oral feeding.	Best served chilled. For enteral use only. Can be gently heated or frozen. Suitable for tube feeding or oral feeding.	Suitable for tube feeding	Powdered milk drink. Add powder to water.	Consumed at room temperature. Suitable as sole nutrition. Add powder to water. Suitable for tube or oral feeding.
Compliance	In an RCT, compliance with Fortini™ Compact of 86%. (percentage of children drinking >75% of product)	In an RCT, compliance with PediaSure was 98.4%. (percentage of children drinking >75% of product)	In the trial, 16 participants completed the trial and consumed the prescribed dose. Three withdrew.	Data not available.	Data not available.
Volume/ Weight	Standard/: 200ml. Compact: 125ml.	Standard: 200ml/500ml. Compact: 125ml.	500ml or 250ml	400g or 1.6g.	400g cans.
Efficacy	In an RCT, Fortini™ was associated with a significant increase in weight (+0.28kg over 4 weeks, p=0.007) and Fortini™ led to a significant increase in height (+0.87cm over 4 weeks, p<0.001).[1]	In an RCT, PediaSure was associated a mean weight gain of almost double the control group (p<0.0001). The change in height was not significantly different between, although there was a tendency for high gain from day 60 to 90.[2]	90% of patients were able to meet their nutritional goals with the feed.[3] Compleat Pediatric also improved gastrointestinal symptoms.[3]	Data not available.	Data not available.

RCT: randomized controlled trial.

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