

# Subcutaneous Hydration in Pediatric Patients

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## 1 Background

Obtaining vascular access on pediatric patients can be difficult due to small veins, especially if they suffer from chronic conditions requiring them to need access on multiple occasions. Subcutaneous hydration is an option for patients in many institutions who are receiving an IV for rehydration. Subcutaneous hydration offers several advantages over peripheral IV placement including less pain during and after insertion, better mobility of extremities and no risk of venous clotting or thrombophlebitis (Eldridge, 2010). Subcutaneous hydration also requires less nursing supervision and would not require an experienced vascular access member to obtain access. Clinical trials have shown that this method of hydration is an excellent alternative to peripheral IV placement for mild to moderate dehydration, and it also spares veins for other procedures (Eldridge, 2010).

## 2 Objectives

- Obtain evidence of how many pediatric patients are receiving peripheral IV access for only rehydration fluids
- Effectively and safely hydrate patients until long term access is obtained or the ability to tolerate oral hydration is evidenced by maintaining urine output

## Methods

3 A data sheet was created for members of the pediatric vascular access team to complete for every patient. The sheets were collected from May-August 2015 and asked specifically if the access was being obtained for the sole purpose of rehydration.

The data sheets were organized and made into a spreadsheet of all patients who were given access for fluids only.

## 4 Results

After the collection of data from May- August 2015 it was found that 148 pediatric patients in the Bloomberg Children's Center were receiving an IV solely for the rehydration. Of those 148 patients, 104 only had to be stuck once, 38 were stuck twice and 6 patients three or more times.

## 5 Conclusions

- Subcutaneous hydration would be an option for any of the patients who are only receiving fluids
- Subcutaneous hydration will save the hospital money on supplies and nursing time
- Vessel preservation and minimizing patient and family trauma is the goal

There is currently no inpatient data for subcutaneous hydration, which was the main reason for us to conduct this study.

## 6 Future Directions

The next step of this project includes implementation of subcutaneous hydration into practice on pediatric floors. An educational pamphlet has been made for both parents and nurses. The vascular access team would be educating the nurses on how to assess and disconnect the fluids from the patient. Eventually, floor nurses should be able to insert and monitor subcutaneous hydration without the vascular access team. Another direction of the project is to potentially implement subcutaneous hydration in the Pediatric Emergency Department, since there are many dehydrated patients that are difficult to obtain access (Kuensting, 2013). It would also be a beneficial option for hospitals that do not have ultrasound guided IV placement.

## 7 References

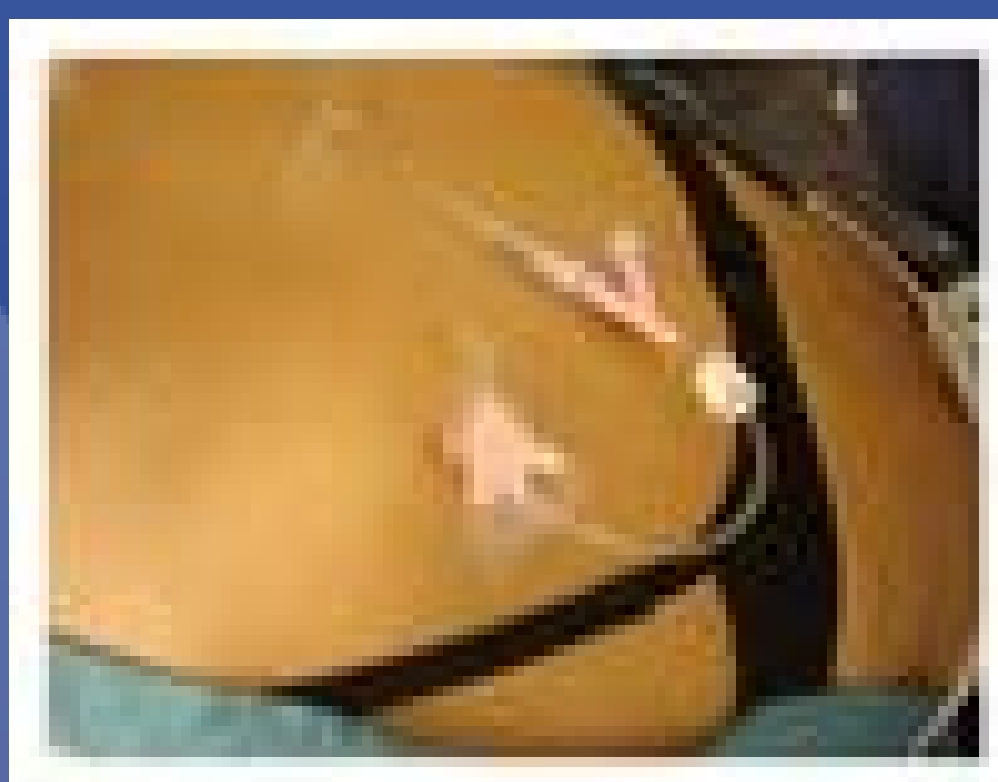
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