

Reducing Diagnostic Errors – A Practical Perspective

We were glad to read the recent article on diagnostic errors [1]. It is a problem that affects doctors and their patients all over the world – unfortunately the error may have grave consequences and the improvement curve is very shallow.

To complement their suggested interventions, we would like to add the perspective of the practicing pediatrician based on our experience:

1. Give adequate time and undivided attention to your patient. Be alert and absorb all that is being told by the patient.
2. Be a good listener.
3. Write down the diagnosis on your prescription — this in itself makes one think before ordering tests or medications.
4. While interviewing the patient, examining and coming back to history if required, and while reviewing all previous laboratory results, keep your mind open as every patient is different [2]. Verify for yourself. Once the patient is with you, it is your responsibility to confirm all the findings and collate them.
5. If the patient is not fitting into a common diagnosis or responding to therapy as expected, think out-of-the box and consider various possibilities again. Keep a checklist if required [3].
6. If you are not sure of the diagnosis, go back to the history again and re-examine your patient head-to-toe. Review the case with your colleague or senior, if required. In the modern era of networking, various platforms allow rapid dissemination of clinical queries and feedback while maintaining patient confidentiality.
7. Ensuring follow-up is very important, particularly when there is non-resolution of symptoms and signs.
8. Do not treat laboratory reports without correlating with the patients' condition. In other words, the clinical picture is paramount.
9. One important way to learn is to get feedback about a patient who was lost to follow-up with you and went to another colleague. In that case, you need to also give feedback to the doctor from whom the patient came to you — this is critical in learning from one another as well as from patients.
10. The continuous training of teachers and a feedback mechanism must be developed.

The focus has to remain on delivering quality service. Rewards and recognition will follow.

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Acquired Hypothyroidism in a Newborn Treated with Amiodarone in the First Week of Life

The amiodarone molecule contains iodine. An overload of this element (“Wolff-Chaikoff” effect) can cause hypothyroidism at all ages; newborn infants are especially susceptible [1].

We describe a case of early-onset acquired hypothyroidism in a premature newborn who received

amiodarone after a week of life. Fetal tachycardia was diagnosed at 24th week of gestation and the mother was treated with digoxin until cesarean section at 34th week. Junctional ectopic tachycardia was confirmed by an electrocardiogram at birth, and amiodarone infusion was administered to the infant from the first day of life. Thyroid function was normal in sample collected for universal screening on the third day. However, on the 14th day thyrotropin increased to 109 mU/L, with low free thyroxine levels (0.83 ng/dL). We started levothyroxine (10 µg/kg/day). The thyroid imaging was normal, antithyroglobulin and antiperoxidase antibodies were negative, and urinary iodine was very high (969 µg/L). Levothyroxine

normalized thyroid function after a month of treatment (thyrotropin 3.5 mU/L and free thyroxine 1.52 ng/dL) it was discontinued at 10 months, maintaining normal thyroid function four years later (thyrotropin < 5 mU/L).

The thyroid gland of both fetus and newborn infants is most affected by an iodine overload. When amiodarone is administered in pregnant women due to maternal or fetal arrhythmias, it can reach the fetus transplacentally, inducing a transient congenital hypothyroidism and, in some cases, compensating goiter [2]. However, reported cases of acquired hypothyroidism after postnatal amiodarone administration are very less [3,4]. There was complete recovery of thyroid function in all of them several months after medication removal.

Guidelines recommend monitoring thyroid function before starting amiodarone, and after six months in adult patients [5]. However, there are no such recommendations for children. In childhood, especially in younger ages, these surveillance intervals of thyroid function should be much shorter. Among children under four years of age, some authors recommend determining thyroid hormones at baseline, weekly during the first month of treatment, monthly during the first quarter, and then quarterly [4]. We agree with these recommendations, taking into account

how quickly hypothyroidism is established in neonates and young infants exposed to amiodarone.

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Media and Measles-Rubella Vaccination Campaign – Musings from Pondicherry

Achieving and maintaining high levels of population immunity by providing high vaccination coverage with two doses of measles and rubella (MR) containing vaccines is a key strategy towards their control and elimination. The MR vaccine campaign was launched on February 6, 2017 targeting around 41 crore children across India, the largest ever in any campaign. All children aged between 9 months to 15 years are being given a single dose of MR vaccine, irrespective of their previous vaccination status. The Union territory of Pondicherry was included in the first phase of the campaign [1].

Surprisingly, even before the campaign started,

several rumors were circulating on social media about MR vaccine, warning parents not to allow their children to be vaccinated and confusing many. Many pediatricians received several calls from parents regarding the safety of the vaccine and need for the campaign. Some of the schools asked for written willingness from parents, which actually escalated their concerns. Minor adverse events following immunization (AEFI) were disproportionately magnified by the media adding to public panic and increased vaccine hesitancy. Subsequently firefighting, was done with more information, education and communication (IEC) activities and involvement of all stakeholders including Indian Academy of Pediatrics and non-government organizations.

In this era of advanced telecommunication, this is a classic example of how false information in social media can derail a noble cause and create a dent in the entire machinery. Vaccine safety gets more public attention than vaccination effectiveness. Independent experts and WHO have shown that vaccines are far safer than therapeutic medicines [2,3]. We should address the specific determinants underlying vaccine hesitancy. Strategies